

## EAST Search History

S19	4	"6093726"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:22
S20	3	"6174894"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:22
S21	5	"6177442"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:22
S22	3	"6207676"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:23
S23	4	"6291474"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:23
S24	3	"6391883"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:23
S25	2	"6573275"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:24
S26	1	"20020061913"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:24
S27	2	"20040082572"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:25
S28	2	"20050119130"	US-PGPUB; USPAT	OR	ON	2007/04/05 15:11
S29	305	549/14;514/433.ccls.	US-PGPUB; USPAT	OR	ON	2007/04/05 15:11
S30	323	549/14;514/433.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/04/05 15:11

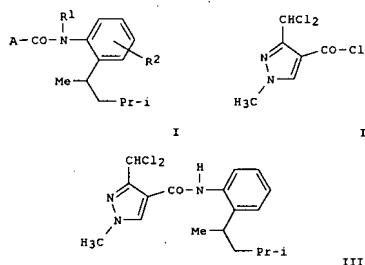
## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	2	"7119049"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/04/05 12:19
S2	34	"3249499"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/04/05 13:10
S3	13	"0545099"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/04/05 13:10
S4	12	"545099"	EPO; DERWENT	OR	ON	2007/04/05 13:11
S5	8	"3657449"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:12
S6	5	"3538225"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:13
S7	48	"3917592"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:13
S8	7	"4032573"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:13
S9	6	"4194008"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:14
S10	24	"5223526"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:15
S11	12	"5416103"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:16
S12	30	"5438070"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:16
S13	9	"5633218"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:16
S14	1	"5914344"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:17
S15	8	"5922732"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:21
S16	6	"5965744"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:21
S17	1	"5965774"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:21
S18	8	"5968947"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:22

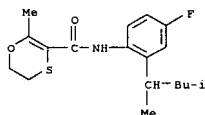
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L12 ANSWER 5 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

L12 ANSWER 5 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT



AB Title compds. I [A = substituted pyrazoles, thioles, pyridines, etc.; R1 = H, alkyl, alkylsulfinyl, etc.; R2 = H, F, Cl, etc.] were prepared For example, N-acylation of 2-(1,3-dimethylbutyl)phenylamine with acid chloride II afforded pyrazolylcarboxanilide III in 70% yield. In venturia apple protection assays, 12-examples of compds. I exhibited 88-100% efficiency at 100 g/ha (sic) application. Compds. I are claimed to be useful for the controlling of undesired microorganisms.  
IT 851755-23-2P  
RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation);  
USES (Uses)  
(Preparation of pyrazolylcarboxanilides and related compds. as microbicide agents)  
RN 851755-23-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(1,3-dimethylbutyl)-4-fluorophenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS

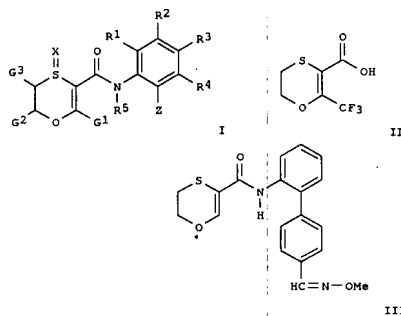
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 26 Aug 2004  
ACCESSION NUMBER: 2004:696341 HCAPLUS  
DOCUMENT NUMBER: 141:225520  
TITLE: Preparation of oxathienylcarboxamides as microbicide agents.  
INVENTOR(S): Dunkel, Ralf; Elbe, Hans-Ludwig; Rieck, Heiko; Greul, Nico Joerg; Wachendorff-Neumann, Ulrike; Dahmen, Peter; Kuck, Karl-Heinz; Hartmann, Benoit  
PATENT ASSIGNEE(S): Bayer CropScience Aktiengesellschaft, Germany  
SOURCE: PCT Int. Appl., 94 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004072023	A2	20040826	WO 2004-EP1053	20040205
WO 2004072023	A3	20050407		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, RW, BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GG, GW, ML, MR, NE, SN, TD, TG				
DE 10306244	A1	20040826	DE 2003-10306244	20030214
DE 10321270	A1	20041202	DE 2003-10321270	20030513
AU 2004212056	A1	20040826	AU 2004-212056	20040205
CA 2515922	A1	20040826	CA 2004-2515922	20040205
EP 1599460	A2	20051130	EP 2004-708349	20040205
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2004007254	A	20060131	BR 2004-7254	20040205
JP 2006517555	T	20060727	JP 2006-140144	20040205
US 2007004793	A1	20070104	US 2006-544897	20060202
PRIORITY APPLN. INFO.:			DE 2003-10306244	A 20030214
			DE 2003-10321270	A 20030513
			WO 2004-EP1053	A 20040205

OTHER SOURCE(S): MARPAT 141:225520  
GI

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



AB Title compds. I [G1 = halo, CF3, CHF2, cyclopropyl; G2, G3 = H, CH3; R1, R2, R3, R4 = H, F, Cl, CH3, etc.; R5 = H, alkyl, alkylsulfinyl, etc.; Z = 21, 22, 23, 24; Z1 = (un)substituted phenyl; Z2 = (un)substituted cycloalkyl, bicycloalkyl; Z3 = (un)substituted alkyl, cycloalkyl; Z4 = (un)substituted cycloalkyl, alkenyl, alkynyl, etc.; X = (O)n; n = 0-2] and their pharmaceutically acceptable salts were prepared For example, coupling of 2'-aminobiphenyl-4-carbaldehyde-O-methyloxime and oxathienylcarboxylic acid II, e.g., prepared from ethyl-2-chloro-3-keto-4,4,4-trifluorobutyrate in 3-steps, afforded oxathienylcarboxamide III in 21% yield. In venturia apple protection assays, 8-examples of compds. I exhibited 100% efficiency at 100 g/ha (sic) application.  
IT 746624-50-OP 746624-51-1P 746624-52-2P  
746624-53-3P 746624-54-4P 746624-55-5P  
746624-56-6P 746624-57-7P 746624-58-8P  
746624-59-9P 746624-60-2P 746624-62-4P  
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746624-66-8P 746624-67-9P 746624-68-0P  
746624-69-1P 746624-70-4P 746624-71-5P  
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746624-78-2P 746624-79-3P 746624-80-6P  
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746624-87-3P 746624-88-4P 746624-89-5P  
746624-90-8P 746624-91-9P 746624-92-0P  
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746624-96-4P 746624-97-5P 746624-98-6P  
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746625-02-5P 746625-03-6P 746625-04-7P  
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746625-10-5P 746625-12-7P 746625-13-8P

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L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

746625-14-9P 746625-15-0P 746625-16-1P  
 746625-17-2P 746625-18-3P 746625-19-4P  
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 746625-26-3P 746625-27-4P 746625-28-5P  
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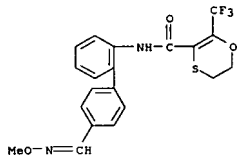
RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN  
 (Synthetic preparation); BIOL (Biological study); PREP (Preparation);

## USES

## (Uses)

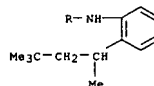
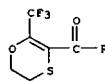
(prepn. of oxathienylcarboxamides as microbicide agents.)

RN 746624-50-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide,  
 5,6-dihydro-N-[(4'-[methoxyimino]methyl)[1,1'-  
 biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

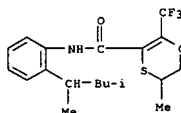


RN 746624-51-1 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-[2-(1,3,3-trimethylbutyl)phenyl]- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

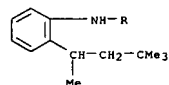
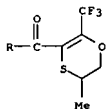


RN 746624-52-2 HCAPLUS  
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 N-[2-(1,3-dimethylbutyl)phenyl]-5,6-dihydro-5-  
 methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

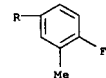
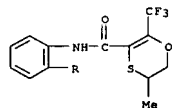


RN 746624-53-3 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide,  
 5,6-dihydro-5-methyl-2-(trifluoromethyl)-N-[2-  
 (1,3,3-trimethylbutyl)phenyl]- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

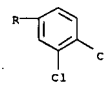
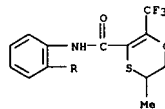


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 CN 1,4-Oxathiin-3-carboxamide, N-(4'-fluoro-3'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-5-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

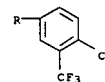
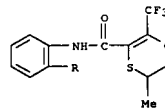


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 CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6-dihydro-5-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



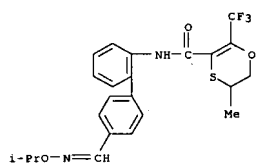
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 INDEX NAME)



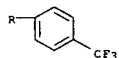
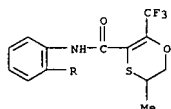
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 (9CI) (CA INDEX NAME)

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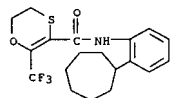
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-58-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
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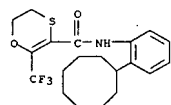


RN 746624-59-9 HCAPLUS  
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(trifluoromethyl)- (9CI) (CA INDEX NAME)

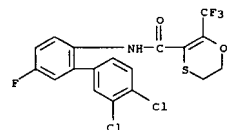


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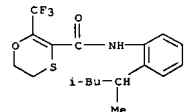
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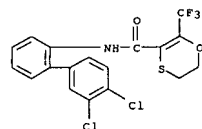
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yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 746624-67-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
N-[2-(1,3-dimethylbutyl)phenyl]-5,6-dihydro-2-  
(trifluoromethyl)- (9CI) (CA INDEX NAME)

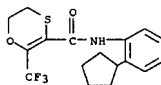


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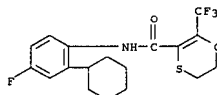


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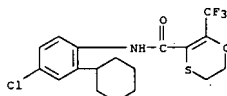
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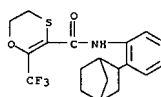
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N-(2-cyclohexyl-4-fluorophenyl)-5,6-dihydro-2-  
(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 746624-63-5 HCAPLUS  
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N-(4-chloro-2-cyclohexylphenyl)-5,6-dihydro-2-  
(trifluoromethyl)- (9CI) (CA INDEX NAME)

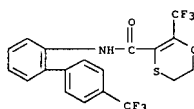


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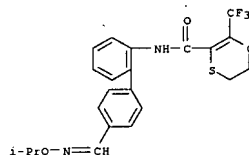


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(trifluoromethyl)- (9CI) (CA INDEX NAME)

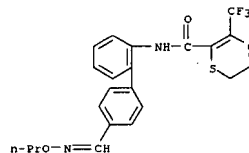
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-[4'-  
(trifluoromethyl)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)



RN 746624-70-4 HCAPLUS  
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methylethoxy]imino]methyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)-  
(9CI)  
(CA INDEX NAME)



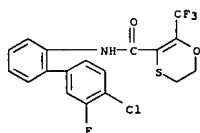
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biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



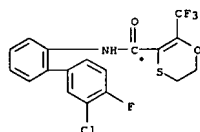
RN 746624-72-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-chloro-3'-fluoro[1,1'-biphenyl]-2-yl)-  
5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

10544897

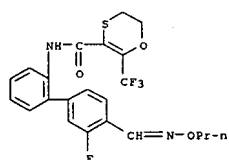
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-73-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-4'-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

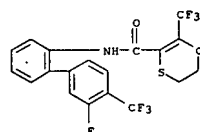


RN 746624-74-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[3'-fluoro-4'-[(propoxyimino)methyl][1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

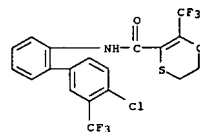


RN 746624-75-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-chloro-2'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

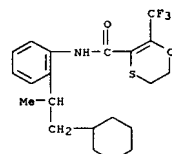
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-79-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[4'-chloro-3'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

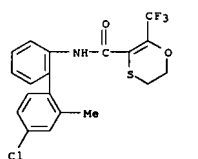


RN 746624-80-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-(2-cyclohexyl-1-methylethyl)phenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

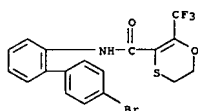


RN 746624-81-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3',5'-difluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

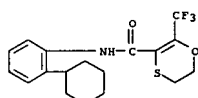
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-76-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-bromo[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

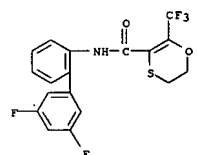


RN 746624-77-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclohexylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

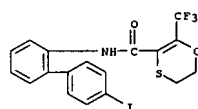


RN 746624-78-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[3'-fluoro-4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

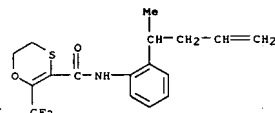
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-82-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-iodo[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



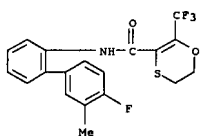
RN 746624-83-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-(1-methyl-3-butenyl)phenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



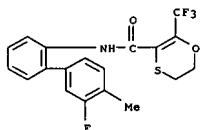
RN 746624-84-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-fluoro-3'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

10544897

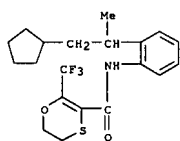
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-85-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-fluoro-4'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

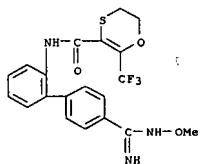


RN 746624-86-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-(2-cyclopentyl-1-methylethyl)phenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

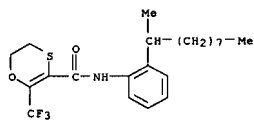


RN 746624-87-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-4'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

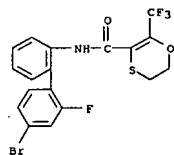
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-91-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-(1-methylnonyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

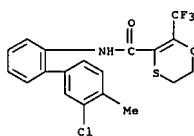


RN 746624-92-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-bromo-2'-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

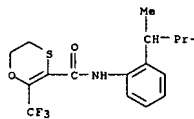


RN 746624-93-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-5'-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

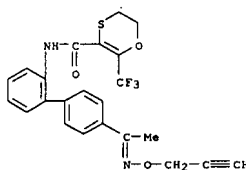
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-88-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-(1-methylbutyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

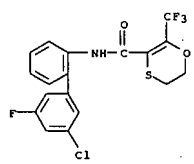


RN 746624-89-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(4'-[1-(2-propynyloxy)imino]ethyl[1,1'-biphenyl]-2-yl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

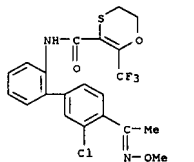


RN 746624-90-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(4'-[imino(methoxyamino)methyl][1,1'-biphenyl]-2-yl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

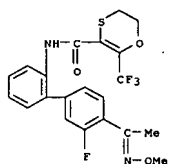
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-94-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-4'-[1-(methoxyimino)ethyl][1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



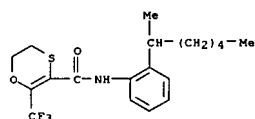
RN 746624-95-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-fluoro-4'-[1-(methoxyimino)ethyl][1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



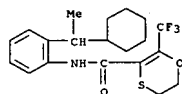
RN 746624-96-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(2-(1-methylhexyl)phenyl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

10544897

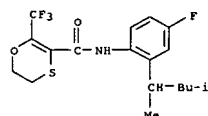
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



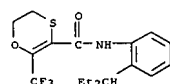
RN 746624-97-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
N-[2-(1-cyclohexylethyl)phenyl]-5,6-dihydro-2-  
(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 746624-98-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(1,3-dimethylbutyl)-4-fluorophenyl]-5,6-  
dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

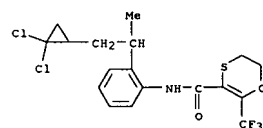


RN 746624-99-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(1-ethylpropyl)phenyl]-5,6-dihydro-2-  
(trifluoromethyl)- (9CI) (CA INDEX NAME)

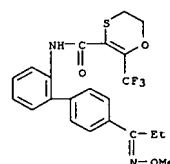


RN 746625-00-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[4-fluoro-2-(1-methylbutyl)phenyl]-5,6-

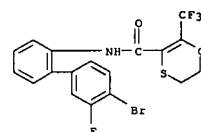
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-04-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[4'-[1-  
(methoxyimino)propyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI)  
(CA INDEX NAME)

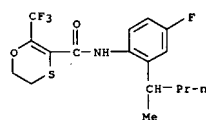


RN 746625-05-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
N-[4'-bromo-3'-fluoro[1,1'-biphenyl]-2-yl]-5,6-  
dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

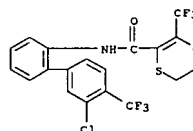


RN 746625-06-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-[2-(1,3-  
trimethylpentyl)phenyl]- (9CI) (CA INDEX NAME)

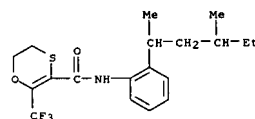
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-01-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[3'-chloro-4'-(trifluoromethyl)[1,1'-  
biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

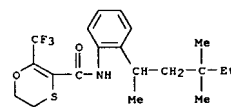


RN 746625-02-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
N-[2-(1,3-dimethylpentyl)phenyl]-5,6-dihydro-2-  
(trifluoromethyl)- (9CI) (CA INDEX NAME)

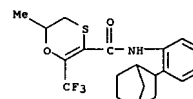


RN 746625-03-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-[2-(2,2-dichlorocyclopropyl)-1-  
methylethyl]phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX  
NAME)

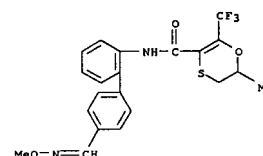
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-07-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-bicyclo[2.2.1]hept-2-ylphenyl]-5,6-  
dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



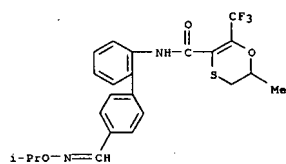
RN 746625-10-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
5,6-dihydro-N-[4'-[(methoxyimino)methyl][1,1'-  
biphenyl]-2-yl]-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



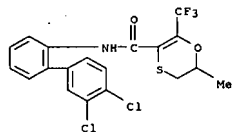
RN 746625-12-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-6-methyl-N-[4'-[[1-  
methylethoxy]imino]methyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)-  
(9CI)  
(CA INDEX NAME)

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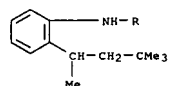
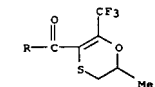
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-13-8 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

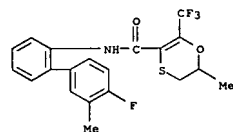


RN 746625-14-9 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2-(1,3,3-trimethylbutyl)phenyl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

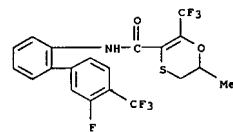


RN 746625-15-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro-5-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

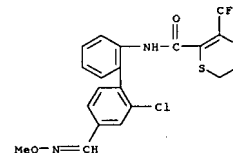
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-19-4 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(3'-fluoro-4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

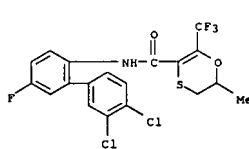


RN 746625-20-7 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2'-chloro-4'-[methoxyimino]methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

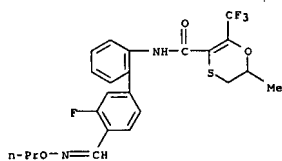


RN 746625-21-8 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2'-chloro-4'-[methoxyimino]methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

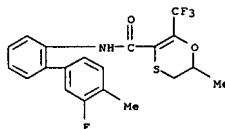
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-16-1 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(3'-fluoro-4'-(propoxyimino)methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

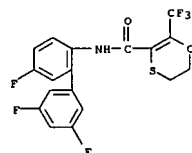


RN 746625-17-2 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(3'-fluoro-4'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

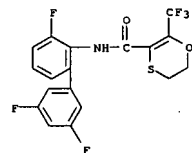


RN 746625-18-3 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(4'-fluoro-3'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

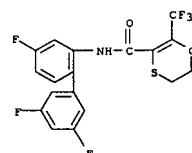
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-22-9 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(3',4,5'-trifluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



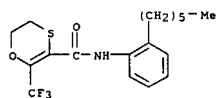
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 CN 1,4-Oxathiin-3-carboxamide, N-(3',4,5'-trifluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



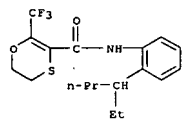
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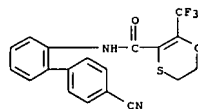
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-25-2 HCAPLUS  
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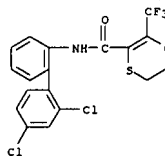


RN 746625-26-3 HCAPLUS  
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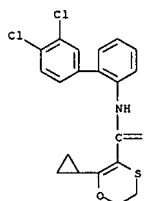


RN 746625-27-4 HCAPLUS  
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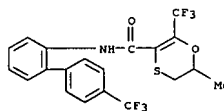
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-28-5 HCAPLUS  
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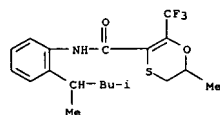


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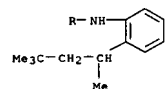
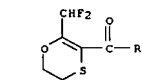


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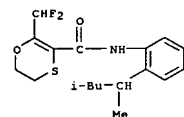
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746637-91-2 HCAPLUS  
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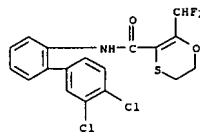


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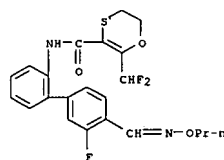


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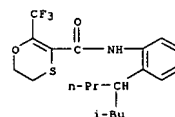
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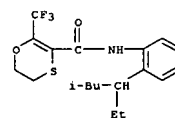
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RN 746637-96-7 HCAPLUS  
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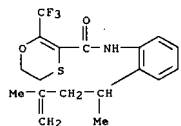
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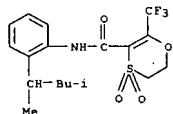
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L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

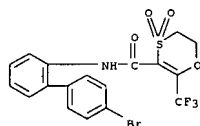
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RN 746637-99-0 HCAPLUS  
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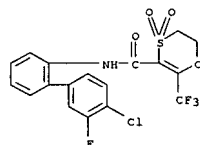


RN 746638-00-6 HCAPLUS  
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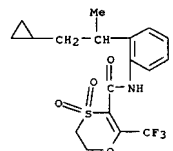


RN 746638-01-7 HCAPLUS  
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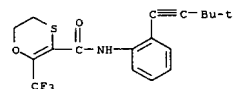
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746638-05-1 HCAPLUS  
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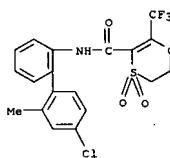


RN 746638-06-2 HCAPLUS  
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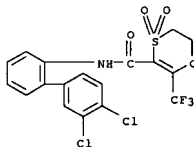


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 CN 1,4-Oxathiin-3-carboxamide, N-(4'-bromo-3'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

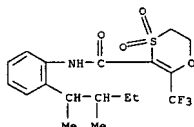
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746638-02-8 HCAPLUS  
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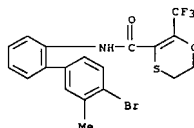


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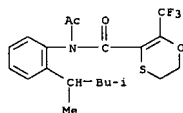


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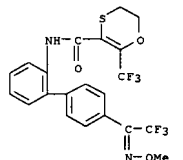
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



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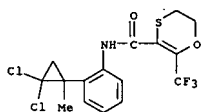
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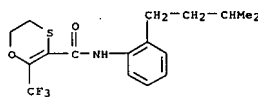
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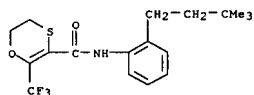
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



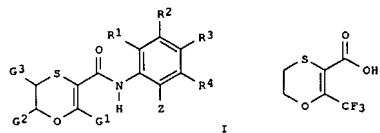
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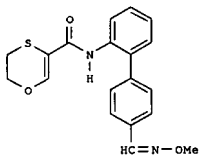
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L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



II



III

AB Title compds. I [G1 = CF<sub>3</sub>, cyclopropyl; G2, G3 = H, CH<sub>3</sub>; R1, R2, R3, R4 = H, F, Cl, CH<sub>3</sub>; Z = Z1, Z2, Z3, Z4; Z1 = (un)substituted phenyl; Z2 = (un)substituted cycloalkyl, bicycloalkyl; Z3 = (un)substituted alkyl; Z4 = (un)substituted cycloalkyl, alkenyl, alkynyl, etc.] and their pharmaceutically acceptable salts were prepared. For example, coupling of 2'-aminobiphenyl-4-carbaldehyde-O-methyloxime and oxathienylcarboxylic acid II, e.g., prepared from

ethyl-2-chloro-3-keto-4,4,4-trifluorobutyrate in 3-steps, afforded oxathienylcarboxamide III in 21% yield. In venturia apple protection assays, 8-examples of compds. I exhibited 88% efficiency at 100 g/ha (sic) application.

IT 746624-50-8P 746624-51-1P 746624-52-2P  
 746624-53-3P 746624-54-4P 746624-55-5P  
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L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 26 Aug 2004

ACCESSION NUMBER: 2004:695242 HCAPLUS

DOCUMENT NUMBER: 141:225519

TITLE: Preparation of oxathienylcarboxamides as microbicide agents.

INVENTOR(S): Dunkel, Ralf; Elbe, Hans-Ludwig; Rieck, Heiko; Greul, Joerg Nico; Wachendorff-Neumann, Ulrike; Dahmen, Peter; Kuck, Karl-Heinz

PATENT ASSIGNEE(S): Bayer CropScience A.-G., Germany

SOURCE: Ger. Offen., 40 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10306244	A1	20040826	DE 2003-10306244	20030214
AU 2004212056	A1	20040826	AU 2004-212056	20040205
CA 2515922	A1	20040826	CA 2004-2515922	20040205
WO 2004072023	A2	20040826	WO 2004-EP1053	20040205
WO 2004072023	A3	20050407		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NA, NI, RW, BH, GM, GR, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1599460 A2 20051130 EP 2004-708349 20040205

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

BR 2004007254 A 20060131 BR 2004-7254 20040205

CN 1774432 A 20060517 CN 2004-80009974 20040205

JP 2006517555 T 20060727 JP 2006-501741 20040205

US 2007004793 A1 20070104 US 2006-544897 20060202

PRIORITY APPLN. INFO.: DE 2003-10306244 A 20030214

DE 2003-10321270 A 20030513

WO 2004-EP1053 A 20040205

OTHER SOURCE(S): MARPAT 141:225519  
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L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

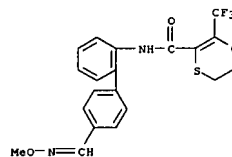
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RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation);

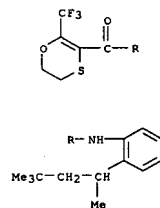
USES

(Uses)  
 (prepn. of oxathienylcarboxamides as microbicide agents.)

RN 746624-50-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[4'-((methoxymino)methyl)[1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



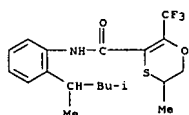
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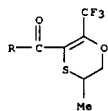
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L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

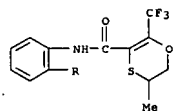


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 (1,3,3-trimethylbutyl)phenyl]- (9CI) (CA INDEX NAME)

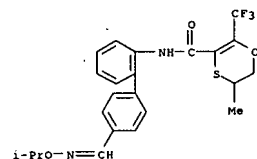


RN 746624-54-4 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(4'-fluoro-3'-methyl[1,1'-biphenyl]-2-yl)-  
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L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

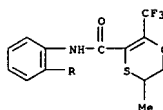


RN 746624-57-7 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-5-methyl-N-[4'-[[[(1-methylethoxy)imino]methyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)-  
 (9CI) (CA INDEX NAME)

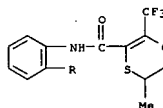


RN 746624-58-8 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide,  
 5,6-dihydro-5-methyl-2-(trifluoromethyl)-N-[4'-  
 (trifluoromethyl)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

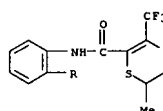


RN 746624-55-5 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6-  
 dihydro-5-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

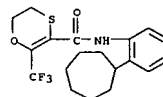


RN 746624-56-6 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[4'-chloro-3'-(trifluoromethyl)[1,1'-  
 biphenyl]-2-yl]-5,6-dihydro-5-methyl-2-(trifluoromethyl)- (9CI) (CA  
 INDEX NAME)

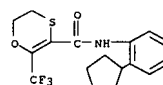
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



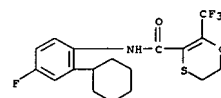
RN 746624-59-9 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2-cycloheptylphenyl)-5,6-dihydro-2-  
 (trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 746624-60-2 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclopentylphenyl)-5,6-dihydro-2-  
 (trifluoromethyl)- (9CI) (CA INDEX NAME)

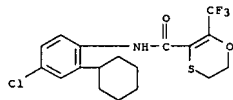


RN 746624-62-4 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide,  
 N-(2-cyclohexyl-4-fluorophenyl)-5,6-dihydro-2-  
 (trifluoromethyl)- (9CI) (CA INDEX NAME)

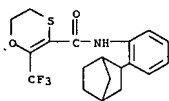


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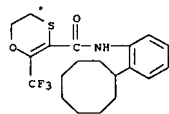
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
 RN 746624-63-5 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide,  
 N-(4-chloro-2-cyclohexylphenyl)-5,6-dihydro-2-  
 (trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 746624-64-6 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2-bicyclo[2.2.1]hept-2-ylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

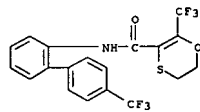


RN 746624-65-7 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclooctylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

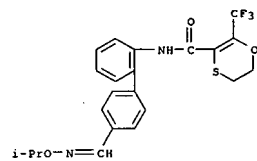


RN 746624-66-8 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro-5-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

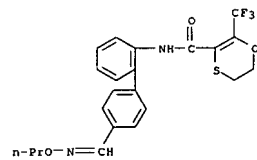
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-70-4 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[4'-{[(1-methylethoxy)imino]methyl}[1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI)  
 (CA INDEX NAME)

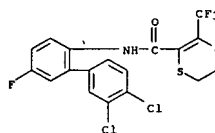


RN 746624-71-5 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide,  
 5,6-dihydro-N-[4'-{[(propoxyimino)methyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

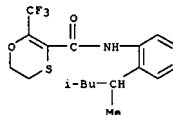


RN 746624-72-6 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(4'-chloro-3'-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

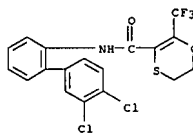
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-67-9 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide,  
 N-[2-[(1,3-dimethylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

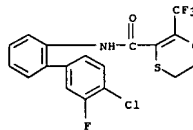


RN 746624-68-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

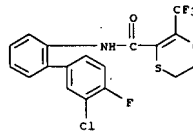


RN 746624-69-1 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-[4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)

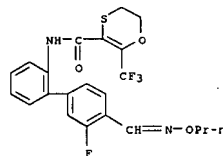
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-73-7 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-4'-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



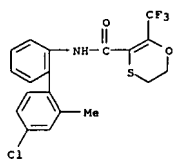
RN 746624-74-8 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[3'-fluoro-4'-{[(propoxyimino)methyl][1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



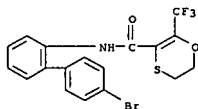
RN 746624-75-9 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(4'-chloro-2'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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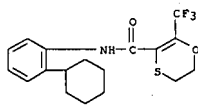
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-76-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
N-(4'-bromo[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-  
(trifluoromethyl)- (9CI) (CA INDEX NAME)

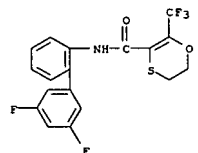


RN 746624-77-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclohexylphenyl)-5,6-dihydro-2-  
(trifluoromethyl)- (9CI) (CA INDEX NAME)

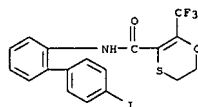


RN 746624-78-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[3'-fluoro-4'-(trifluoromethyl)[1,1'-  
biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

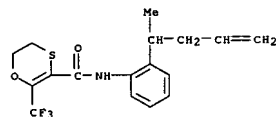
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-82-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
5,6-dihydro-N-(4'-iodo[1,1'-biphenyl]-2-yl)-2-  
(trifluoromethyl)- (9CI) (CA INDEX NAME)

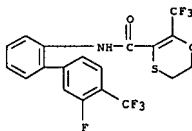


RN 746624-83-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
5,6-dihydro-N-[2-(1-methyl-3-butenyl)phenyl]-2-  
(trifluoromethyl)- (9CI) (CA INDEX NAME)

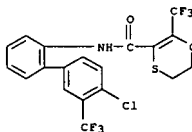


RN 746624-84-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-fluoro-3'-methyl[1,1'-biphenyl]-2-yl)-  
5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

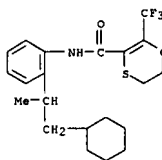
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-79-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-chloro-3'-(trifluoromethyl)[1,1'-  
biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

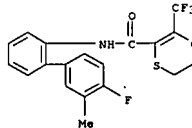


RN 746624-80-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(2-cyclohexyl-1-methylethyl)phenyl]-5,6-  
dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

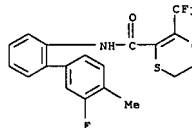


RN 746624-81-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3',5'-difluoro[1,1'-biphenyl]-2-yl)-5,6-  
dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

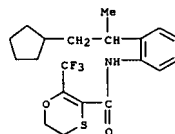
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-85-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-fluoro-4'-methyl[1,1'-biphenyl]-2-yl)-  
5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



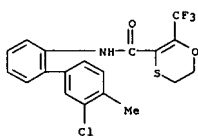
RN 746624-86-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
N-[2-(2-cyclopentyl-1-methylethyl)phenyl]-5,6-  
dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



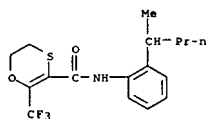
RN 746624-87-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-4'-methyl[1,1'-biphenyl]-2-yl)-  
5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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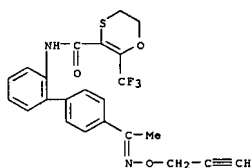
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-88-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-(1-methylbutyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

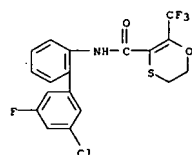


RN 746624-89-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[4'-[1-[(2-propynyloxyimino)ethyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

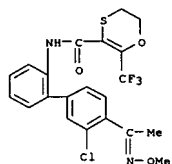


RN 746624-90-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[4'-[1-[(2-propynyloxyimino)ethyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

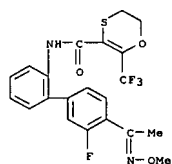
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-94-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[3'-chloro-4'-[1-(methoxyimino)ethyl][1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

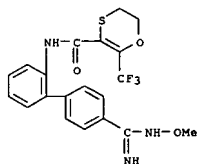


RN 746624-95-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[3'-fluoro-4'-[1-(methoxyimino)ethyl][1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

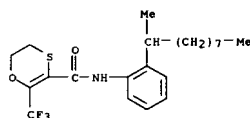


RN 746624-96-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-(1-methylhexyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

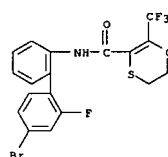
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-91-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-(1-methylnonyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

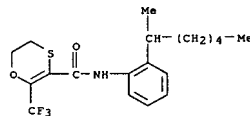


RN 746624-92-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-bromo-2'-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

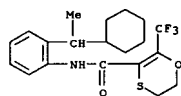


RN 746624-93-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-5'-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

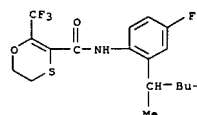
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



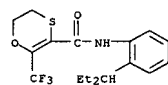
RN 746624-97-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(1-cyclohexylethyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 746624-98-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(1,3-dimethylbutyl)-4-fluorophenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



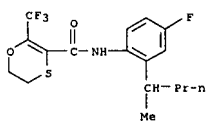
RN 746624-99-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(1-ethylpropyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



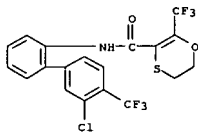
RN 746625-00-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[4-fluoro-2-(1-methylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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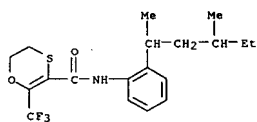
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-01-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[3'-chloro-4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

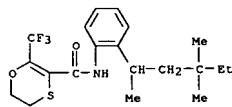


RN 746625-02-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(1,3-dimethylpentyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

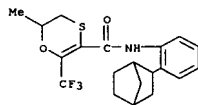


RN 746625-03-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(2-(2,2-dichlorocyclopropyl)-1-methylethyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

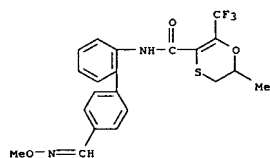
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-07-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-bicyclo[2.2.1]hept-2-ylphenyl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

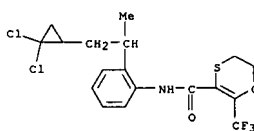


RN 746625-10-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[4'-[(methoxyimino)methyl][1,1'-biphenyl]-2-yl]-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

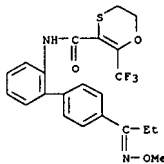


RN 746625-12-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[4'-[(1-methylethoxy)imino]methyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

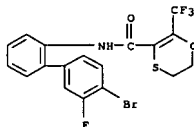
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-04-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[4'-[1-(methoxyimino)propyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

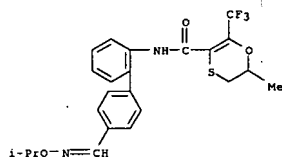


RN 746625-05-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[4'-[1-(methoxyimino)propyl][1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

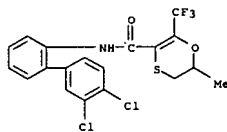


RN 746625-06-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[4'-[1-(methoxyimino)propyl][1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

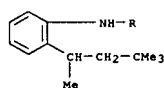
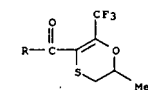
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-13-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[4'-[1-(methoxyimino)propyl][1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



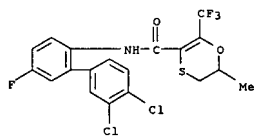
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CN 1,4-Oxathiin-3-carboxamide, N-[4'-[1-(methoxyimino)propyl][1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



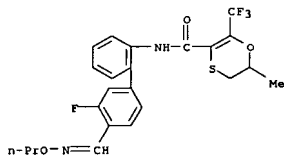
RN 746625-15-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[4'-[1-(methoxyimino)propyl][1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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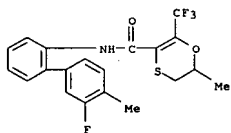
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-16-1 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[3'-fluoro-4'-[(propoxyimino)methyl][1,1'-biphenyl]-2-yl]-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

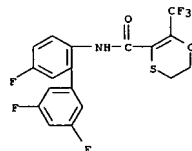


RN 746625-17-2 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[3'-fluoro-4'-methyl[1,1'-biphenyl]-2-yl]-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

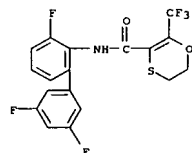


RN 746625-18-3 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[4'-fluoro-3'-methyl[1,1'-biphenyl]-2-yl]-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

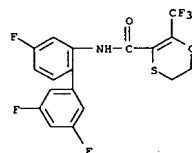
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-22-9 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(3,3',5'-trifluoro[1,1'-biphenyl]-2-yl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

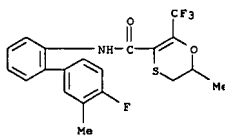


RN 746625-23-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(3',4,5'-trifluoro[1,1'-biphenyl]-2-yl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

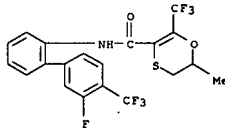


RN 746625-24-1 HCAPLUS  
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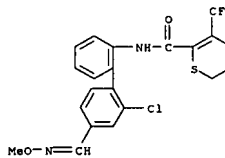
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-19-4 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[3'-fluoro-4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

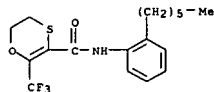


RN 746625-20-7 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[2'-(chloro-4'-[(methoxyimino)methyl][1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

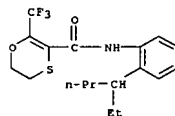


RN 746625-21-8 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(3',5,5'-trifluoro[1,1'-biphenyl]-2-yl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

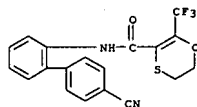
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



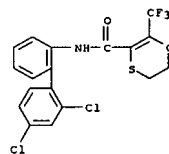
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 CN 1,4-Oxathiin-3-carboxamide, N-[2-(1-ethylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 746625-26-3 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(4'-cyano[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



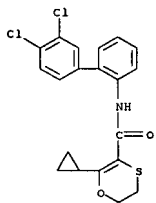
RN 746625-27-4 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



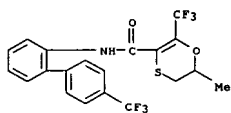
RN 746625-28-5 HCAPLUS

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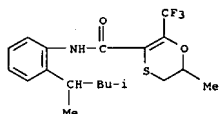
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
 CN 1,4-Oxathiin-3-carboxamide,  
 2-cyclopropyl-N-(3',4'-dichloro[1,1'-biphenyl]-  
 2-yl)-5,6-dihydro- (9CI) (CA INDEX NAME)



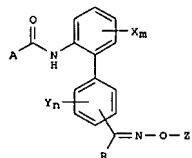
RN 746637-89-8 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide,  
 5,6-dihydro-6-methyl-2-(trifluoromethyl)-N-[4'-  
 (trifluoromethyl)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)



RN 746637-90-1 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide,  
 N-[2-(1,3-dimethylbutyl)phenyl]-5,6-dihydro-6-  
 methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 8 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

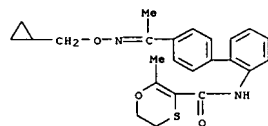


AB Title compds. [I; R = H, alkyl, haloalkyl; Z = alkenyl, alkynyl, haloalkenyl, haloalkynyl; X, Y = halo, cyano, NO<sub>2</sub>, alkyl, alkoxy, alkylthio, haloalkyl, haloalkoxy, haloalkylthio; m, n = 0-4; A = 5-6 membered substituted heterocyclyl], were prepared. Thus, 2'-amino-1,1'-biphenyl-4-carbaldehyde O-allyloxime (preparation given) and Et<sub>3</sub>N was treated with 4-difluoromethyl-2-methylthiazole-5-carbonyl chloride in PhMe at room temperature followed by stirring for 3 h at 50° to give 49.6% N-[4'-[(E)-[(allyloxy)imino]methyl]-1,1'-biphenyl-2-yl]-4-(difluoromethyl)-2-methyl-1,3-thiazole-5-carboxamide. The latter at 100 ppm gave 100% control of Venturia inaequalis.

IT 705944-48-5P 705944-84-9P  
 RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation);

USES  
 (Uses)  
 (preparation of biphenylcarboxamides as agricultural fungicides and insecticides)

RN 705944-48-5 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide,  
 N-[4'-[1-(cyclopropylmethoxy)imino]ethyl][1,1'-  
 biphenyl]-2-yl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 705944-84-9 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[4'-[1-(2-propenyloxy)imino]ethyl][1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)

L12 ANSWER 8 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 24 Jun 2004

ACCESSION NUMBER: 2004:509994 HCAPLUS

DOCUMENT NUMBER: 141:54333

TITLE: Preparation of biphenylcarboxamides as agricultural fungicides and insecticides

INVENTOR(S): Dunkel, Ralf; Elbe, Hans-Ludwig; Rieck, Heiko; Greul, Joerg Nico; Wachendorff-Neumann, Ulrike; Mauler-Machnik, Astrid; Dahmen, Peter; Kuck, Karl-Heinz; Loesel, Peter

PATENT ASSIGNEE(S): Bayer CropScience AG, Germany

SOURCE: Ger. Offen., 70 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

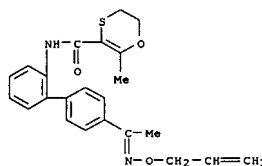
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10258314	A1	20040624	DE 2002-10258314	20021213
WO 2004054982	A1	20040701	WO 2003-EP13498	20031201
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SV, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2003298156	A1	20040709	AU 2003-298156	20031201
EP 1572663	A1	20050914	EP 2003-795860	20031201
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
BR 2003017290	A	20051108	BR 2003-17290	20031201
CN 1745067	A	20060308	CN 2003-80109571	20031201
JP 2006515841	T	20060608	JP 2004-559734	20031201
PRIORITY APPLN. INFO.:			DE 2002-10258314	A 20021213
			WO 2003-EP13498	W 20031201

OTHER SOURCE(S): MARPAT 141:54333

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L12 ANSWER 8 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

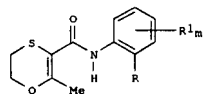


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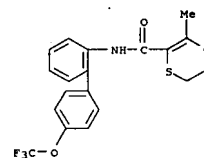
L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 07 Dec 2003  
 ACCESSION NUMBER: 2003:951013 HCAPLUS  
 140:5055  
 DOCUMENT NUMBER:  
 TITLE: Preparation of oxathiincaroxyamides as agricultural fungicides  
 INVENTOR(S): Raeck, Heiko; Dunkel, Ralf; Elbe, Hans-ludwig; Wachendorff-Neumann, Ulrike; Mauler-Machnik, Astrid; Kuck, Karl-Heinz  
 PATENT ASSIGNEE(S): Bayer CropScience AG, Germany  
 SOURCE: PCT Int. Appl., 68 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003099804	A1	20031204	WO 2003-EP5103	20030515
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
DE 10222886	A1	20031211	DE 2002-10222886	20020523
IN 20030200680	A	20050311	IN 2003-DE680	20030508
AU 2003232775	A1	20031212	AU 2003-232775	20030515
EP 1509513	A1	20050302	EP 2003-755101	20030515
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
BR 2003011385	A	20050419	BR 2003-11385	20030515
JP 200536469	T	20051202	JP 2004-507461	20030515
US 2005203171	A1	20050915	US 2005-515044	20050512
US 7119049	B2	20061010		
PRIORITY APPLN. INFO.:			DE 2002-10222886	A 20020523
			WO 2003-EP5103	W 20030515

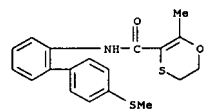
OTHER SOURCE(S): MARPAT 140:5055  
 GI



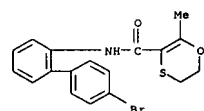
L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[4'-(trifluoromethoxy)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)



RN 627105-80-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[4'-(methylthio)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)



RN 627105-81-1 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(4'-bromo[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 627105-82-2 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

AB Title compds. [I: R1 = F; m = 0-2; R = (substituted) Ph], were prepared Thus, a suspension of K2CO3 in MeCN was dropwise treated with 4'-chloro-2'-fluoro-1,1'-biphenyl-2-amine and 2-methyl-5,6-dihydro-1,4-oxathiin-3-carbonyl chloride followed by stirring for 10 h to give 39%

N-(4'-chloro-2'-fluoro-1,1'-biphen-2-yl)-2-methyl-5,6-dihydro-1,4-oxathiin-3-carboxamide. The latter at 100 g/ha gave 100% control of Venturia inaequalis.

IT 627105-77-5P 627105-78-6P 627105-79-7P  
 627105-80-0P 627105-81-1P 627105-82-2P  
 627105-83-3P 627105-84-4P 627105-85-5P  
 627105-86-6P 627105-87-7P 627105-88-8P  
 627105-89-9P 627105-90-2P 627105-91-3P  
 627105-92-4P 627105-93-5P 627105-94-6P  
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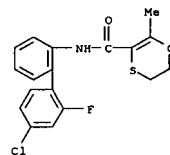
RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation);

USES

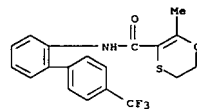
(Uses)  
 (Preparation of oxathiincaroxyamides as agricultural fungicides)

RN 627105-77-5 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(4'-chloro-2'-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

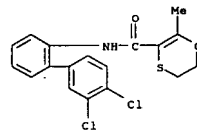


RN 627105-78-6 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)

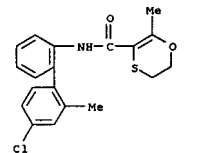


RN 627105-79-7 HCAPLUS

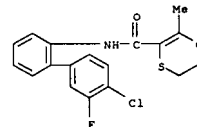
L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 627105-83-3 HCAPLUS  
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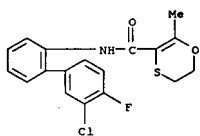
RN 627105-84-4 HCAPLUS  
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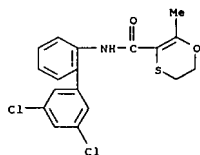
RN 627105-85-5 HCAPLUS  
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10544897

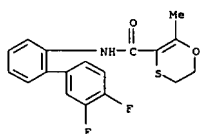
L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 627105-86-6 HCAPLUS  
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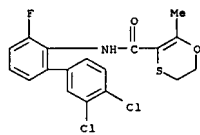


RN 627105-87-7 HCAPLUS  
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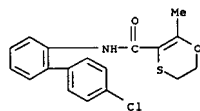


RN 627105-88-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-chloro-3'-(trifluoromethyl)[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

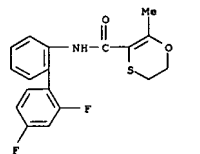
L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 627105-92-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-fluoro-4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

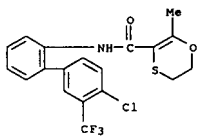


RN 627105-93-5 HCAPLUS  
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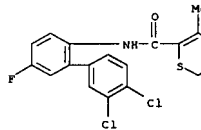


RN 627105-94-6 HCAPLUS  
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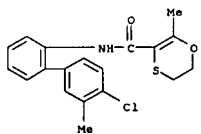
L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 627105-89-9 HCAPLUS  
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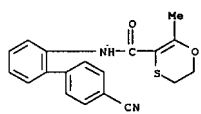


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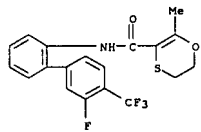


RN 627105-91-3 HCAPLUS  
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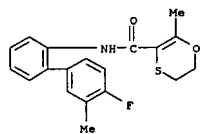
L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



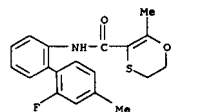
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CN 1,4-Oxathiin-3-carboxamide, N-(3'-fluoro-4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 627105-96-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-fluoro-3'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



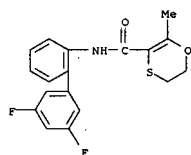
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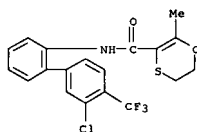
RN 627105-98-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3',5'-difluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

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L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 627105-99-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[3'-chloro-4'-((trifluoromethyl)[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



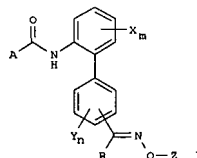
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FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

L12 ANSWER 10 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
ED Entered STN: 01 Feb 2002  
ACCESSION NUMBER: 2002:90017 HCAPLUS  
DOCUMENT NUMBER: 136:151158  
TITLE: Preparation of N-biphenylcarboxamides as bactericides  
INVENTOR(S): Elbe, Hans-Ludwig; Rieck, Heiko; Dunkel, Ralf;  
Wachendorff-Neumann, Ulrike; Mauler-Machnik, Astrid;  
Kuck, Karl-Heinz; Kugler, Martin; Jaetsch, Thomas  
PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany  
SOURCE: PCT Int. Appl., 164 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

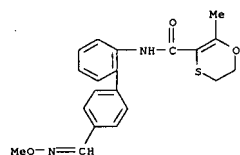
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002008197	A1	20020131	WO 2001-EP7981	20010711
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RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
DE 10122447	A1	20020418	DE 2001-10122447	20010509
EP 1305292	A1	20030502	EP 2001-956525	20010711
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
BR 2001012676	A	20030624	BR 2001-12676	20010711
HU 200301661	A2	20030828	HU 2003-1661	20010711
JP 200404383	T	20040212	JP 2002-514103	20010711
IN 2001MU00664	A	20050304	IN 2001-MU664	20010712
ZA 2003000633	A	20040212	ZA 2003-633	20030123
US 2004039043	A1	20040226	US 2003-333598	20030506
US 7176228	B2	20070213		
PRIORITY APPLN. INFO.:			DE 2000-10035857	A 20000724
			DE 2001-10122447	A 20010509
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OTHER SOURCE(S): MARPAT-136:151158  
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L12 ANSWER 10 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

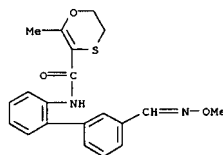


AB Title compds. [I; R = H, (halo)alkyl, cycloalkyl; Z = H, (halo)alkyl; X, Y = halo, NO<sub>2</sub>, cyano, OH, CO<sub>2</sub>H, cycloalkyl, alkoxy, carbonyl, alkoxyimidoalkyl, (halo-substituted) alkyl, alkoxy, alkylthio, alkenyloxy, alkynyloxy, alkylsulfonyl, alkylsulfinyl; m = 0-3; n = 0-4; A = (substituted) 1H-pyrazol-4-yl, 2- or 3-thienyl, Ph, 3-pyridinyl, 3-pyranyl, 1,4-oxathiin-3-yl, 2- or 3-thiopyranyl, 3-pyrrolyl, 3- or 2-furanyl, 5- or 4-thiazolyl, 4-isothiazolyl, 5-isoxazolyl, 2-pyrazinyl, were prepared. Thus, a mixture of 2-(4-methoxyiminomethylphenyl)benzenamine (preparation given) and Et<sub>3</sub>N in PhMe was stirred with 2-methyl-4-trifluoromethylthiazole-5-carbonyl chloride at room temperature followed by stirring for 2 h at 50° to give 74% N-[2-(4-methoxyimidomethylphenyl)phenyl]-2-methyl-4-trifluoromethylthiazole-5-carboxamide. Several I at 100 ppm gave 77-100% control of Podosphaera leucotricha on apple.  
IT 393821-35-7P 393821-47-1P  
RI: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation);  
USES (Uses)  
(preparation of N-biphenylcarboxamides as bactericides)  
RN 393821-35-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[4'-((methoxyimino)methyl)[1,1'-biphenyl]-2-yl]-2-methyl- (9CI) (CA INDEX NAME)



RN 393821-47-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[3'-((methoxyimino)methyl)[1,1'-biphenyl]-2-yl]-2-methyl- (9CI) (CA INDEX NAME)

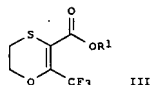
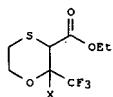
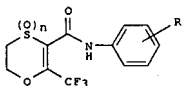
L12 ANSWER 10 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
biphenyl]-2-yl]-2-methyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS  
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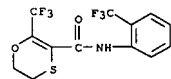
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L12 ANSWER 11 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 31 Oct 2001  
 ACCESSION NUMBER: 2001:788425 HCAPLUS  
 DOCUMENT NUMBER: 137:33267  
 TITLE: Synthesis of trifluoromethylated dihydro-1,4-oxathiin-3-carboxanilides and their fungicidal activity  
 AUTHOR(S): Hahn, Hoh-Gyu; Nam, Kee Dal; Kim, Jin-Cheol; Cho, Kwang Yun  
 CORPORATE SOURCE: Organic Chemistry Lab, Korea Institute of Science and Technology, Seoul, 136-791, S. Korea  
 SOURCE: Han'guk Nonghwa Hakhoechi (2001), 44(3), 191-196  
 CODEN: JKACA7; ISSN: 0368-2897  
 PUBLISHER: Korean Society of Agricultural Chemistry and Biotechnology  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 137:33267  
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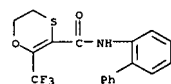


AB  $\alpha$ ,  $\beta$ -Unsaturated carboxanilides with trifluoromethylated dihydro-1,4-oxathiins (I; n = 0, 1; R = H, 4-Me, 2, 3, or 4-OMe, -Cl, or -F, 3 or 4-NO<sub>2</sub>, 4-Br, 2-CF<sub>3</sub>, 2-Ph, etc.) were synthesized for the development of new agrochem. fungicide. Chlorination of trifluoromethylated  $\beta$ -keto ester, i.e. CF<sub>3</sub>COCH<sub>2</sub>CO<sub>2</sub>Et, followed by the reaction with 1,2-mercaptoethanol gave intermediate 1,4-oxathiane (II; X = OH). Without purification of II (X = OH), substitution of hydroxy group by chlorine, followed by dehydrochlorination of II (X = Cl) in the presence of triethylamine afforded trifluoromethylated dihydro-1,4-oxathiin Et ester (III; R<sub>1</sub> = Et). Chlorination of the hydroxy group of the carboxylic acid III (R<sub>1</sub> = H) followed by N-acylation of various amines gave the corresponding trifluoromethylated dihydro-1,4-oxathiin carboxanilides I. Antifungal screening (in vivo) of the synthesized compounds against typical plant diseases, which include rice blast, rice sheath blight, cucumber gray mold, tomato late blight, wheat leaf rust, and barley powdery mildew,

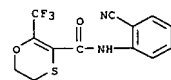
L12 ANSWER 11 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-(2-(trifluoromethyl)phenyl)- (9CI) (CA INDEX NAME)



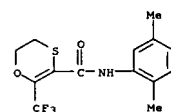
RN 437714-39-1 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(1,1'-biphenyl)-2-yl-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 437714-41-5 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2-cyanophenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 437714-47-1 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2,5-dimethylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 437714-48-2 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

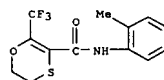
L12 ANSWER 11 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
 was carried out. Where meta position of the Ph group was substituted

with isopropoxy or iso-Pr group, excellent antifungal activities against rice sheath blight and wheat leaf rust were detected.

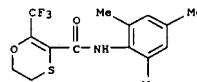
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 RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation);

USES  
 (Uses)  
 (preparation of trifluoromethyldihydro-1,4-oxathiin-carboxanilides as agrochem. fungicides)

RN 220288-82-4 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-(2-methylphenyl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

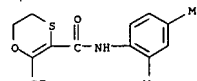


RN 220288-85-7 HCAPLUS  
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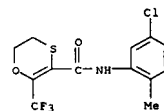


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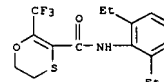
L12 ANSWER 11 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



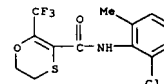
RN 437714-50-6 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(5-chloro-2-methylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 437714-52-8 HCAPLUS  
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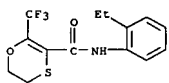
RN 437714-65-3 HCAPLUS  
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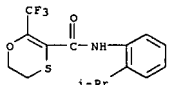
RN 437714-68-6 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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L12 ANSWER 11 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



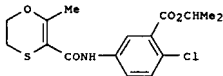
RN 437714-69-7 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-(1-methylethyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE  
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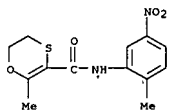
L12 ANSWER 12 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 21 Jan 2001  
 ACCESSION NUMBER: 2001:51606 HCAPLUS  
 DOCUMENT NUMBER: 134:280789  
 TITLE: Synthesis of 1-methylethyl  
 2-chloro-5-[[[5,6-dihydro-2-methyl-1,4-oxathiin-3-yl]carbonyl]amino]benzoate  
 ANALOGS AND THEIR ANTIVIRAL ACTIVITY  
 AUTHOR(S): Xiaoshen, Ji; Yulun, Wang; Huafeng, Zhang; Yan, Gao;  
 Zhenye, Liu; Jiankang, Wang  
 CORPORATE SOURCE: Department of Clinical Pharmacology, General Hospital  
 of Air Force, Beijing, 100036, Peop. Rep. China  
 SOURCE: Journal of Chinese Pharmaceutical Sciences (2000),  
 9(4), 179-181  
 CODEN: JCHSE4; ISSN: 1003-1057  
 PUBLISHER: Beijing Medical University, School of Pharmaceutical  
 Sciences  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 134:280789  
 GI



AB 1-Methylethyl 2-chloro-5-[[[5,6-dihydro-2-methyl-1,4-oxathiin-3-yl]carbonyl]amino]benzoate (1, UC84) has strong antiviral activity. UC84 was taken as the leading compound, and 11 analogs were synthesized. All these compds. were evaluated, and some of them showed the obvious anti-HSV and anti-HSV activities. The results indicated that the analogs of UC84 might be the potential anti-HSV and anti-HSV drugs.  
 IT 331809-62-2P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (preparation of 1-methylethyl 2-chloro-5-[[[5,6-dihydro-2-methyl-1,4-oxathiin-3-yl]carbonyl]amino]benzoate analogs and their antiviral activity)  
 RN 331809-62-2 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methyl-5-nitrophenyl)- (9CI) (CA INDEX NAME)

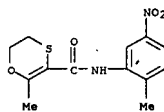
L12 ANSWER 12 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L12 ANSWER 13 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 25 Oct 2000  
 ACCESSION NUMBER: 2000:750704 HCAPLUS  
 DOCUMENT NUMBER: 134:266254  
 TITLE: Preparation of UC84 derivatives  
 AUTHOR(S): Ji, Xiaoshen; Jin, Tao; Miao, Yi; Liu, Yan; Liu, Zhenye; Zhang, Huafeng  
 CORPORATE SOURCE: Department of Clinical Pharmacology, The General  
 Hospital of Air Force, Beijing, 100036, Peop. Rep. China  
 SOURCE: Zhongguo Yaowu Huaxue Zazhi (2000), 10(3), 181-183  
 CODEN: ZYHZEJ; ISSN: 1005-0108  
 PUBLISHER: Zhongguo Yaowu Huaxue Zazhi Bianjibu  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Chinese  
 AB 1-Methylethyl 2-chloro-5-[[[5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxamido]benzoate (UC84) and its analogs were prepared. Some of the synthetic compds. showed obvious anti-HSV and anti-HSV activities.  
 IT 331809-62-2P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and effect of UC84 derivs.)  
 RN 331809-62-2 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methyl-5-nitrophenyl)- (9CI) (CA INDEX NAME)



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Match level :

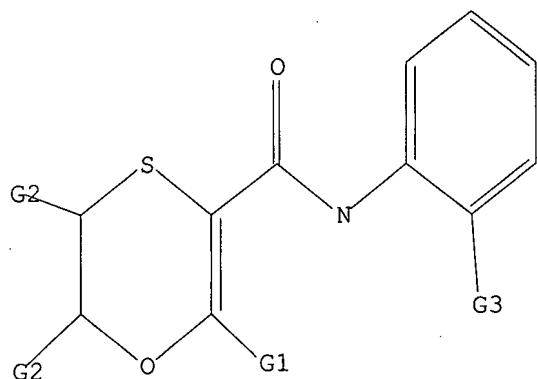
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:Atom 10:CLASS  
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 18:CLASS 20:CLASS 21:CLASS 24:CLASS

L9 STRUCTURE UPLOADED

=> d 19

L9 HAS NO ANSWERS

L9 STR



G1 Me,CF2,CF3,X,Cb

G2 H,Me

G3 Cb,Ak

Structure attributes must be viewed using STN Express query preparation.

=> s 19

SAMPLE SEARCH INITIATED 14:52:55 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 72 TO ITERATE

100.0% PROCESSED 72 ITERATIONS

13 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 931 TO 1949

PROJECTED ANSWERS: 44 TO 476

L10 13 SEA SSS SAM L9

=> s 19 full

FULL SEARCH INITIATED 14:53:02 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 1621 TO ITERATE

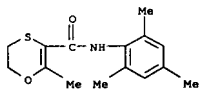
100.0% PROCESSED 1621 ITERATIONS

395 ANSWERS

SEARCH TIME: 00.00.01

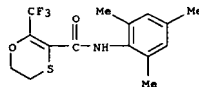
10544897

L12 ANSWER 14 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 20 Apr 1999  
 ACCESSION NUMBER: 1999:241387 HCAPLUS  
 DOCUMENT NUMBER: 130:338072  
 TITLE: Formation of bicyclic  $\beta$ -lactams from dichloro-1,4-oxathiane-3-carboxanilides: nucleophilic substitution of nitrogen on anomeric carbon  
 AUTHOR(S): Hahn, Hoh-Gyu; Chang, Kee-Hyuk  
 CORPORATE SOURCE: Organic Chemistry Lab, Korea Institute of Science and Technology, Seoul, 136-791, S. Korea  
 SOURCE: Heterocycles (1999), 50(2), 713-719  
 CODEN: HETCYAM; ISSN: 0385-5414  
 PUBLISHER: Japan Institute of Heterocyclic Chemistry  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 130:338072  
 AB Transformation of dichloro-1,4-oxathianecarboxanilides(I) to bicyclic  $\beta$ -lactams is described. In the presence of sodium hydride, an intramol. nucleophilic substitution of nitrogen to anomeric carbon of I gave (1R\*,6R\*)-1-chloro-6-methyl-7-phenyl-5-oxa-2-thia-7-azabicyclo[4,2,0]octan-8-ones. The reason for facile displacement at C-2 is attributable to neighboring group participation of sulfur and C-2 is anomeric. Plausible mechanisms for the formation of 2-chloromethyl-5,6-dihydro-N-phenyl-1,4-oxathiin-3-carboxamide under the neutral conditions, or 2,3-dihydroxy-2-methyl-N-phenyl-1,4-oxathiane-3-carboxamide in aqueous solution, or bicyclic  $\beta$ -lactam in the presence of sodium hydride were proposed.  
 IT 21554-33-6  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (formation of bicyclic  $\beta$ -lactams from dichloro-1,4-oxathiane-3-carboxanilides by nucleophilic substitution of nitrogen on anomeric carbon)  
 RN 21554-33-6 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2,4,6-trimethylphenyl)-(9CI) (CA INDEX NAME)

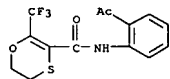


REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
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L12 ANSWER 15 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

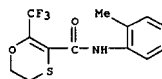


RN 220288-89-1 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2-acetylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



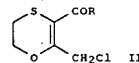
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
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L12 ANSWER 15 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 08 Jan 1999  
 ACCESSION NUMBER: 1999:11372 HCAPLUS  
 DOCUMENT NUMBER: 130:153621  
 TITLE: Synthesis of trifluoromethylated dihydro-1,4-oxathiin-3-carboxanilides through polymer-bound activated ester  
 AUTHOR(S): Hahn, Hoh-Gyu; Kee, Hyuk Chang; Kee, Dal Nam; Bae, Su Yeoul; Mah, Heduck  
 CORPORATE SOURCE: Organic Chemistry Lab, Korea Institute of Science and Technology, Seoul, 136-791, S. Korea  
 SOURCE: Heterocycles (1998), 48(11), 2253-2261  
 CODEN: HETCYAM; ISSN: 0385-5414  
 PUBLISHER: Japan Institute of Heterocyclic Chemistry  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 130:153621  
 AB A synthesis of new trifluoromethylated dihydro-1,4-oxathiin-3-carboxanilides through polymer-bound activated ester is described. Chlorination of Et  $\gamma,\gamma,\gamma$ -trifluoroacetate followed by treatment of 2-mercaptoethanol gave hydroxyoxathiane isomers. Replacement of hydroxy by chlorine and then dehydrochlorination afforded trifluoromethyl dihydro-1,4-oxathiin ester. The polymer-bound trifluoromethylated dihydro-1,4-oxathiin-3-carboxylic acid, 4-hydroxy-3-nitrobenzophenone ester was prepared through the reaction of polystyrene-bound 4-hydroxy-3-nitrobenzophenone with the trifluoromethylated dihydro-1,4-oxathiin-3-carbonyl chloride. Refluxing of this ester with anilines in acetonitrile gave the title carboxanilides.  
 The reaction rate depended on the nucleophilicity of nitrogen in aniline.  
 IT 220288-82-4P 220288-85-7P 220288-89-1P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of trifluoromethylated dihydrooxathianecarboxanilides from polymer-bound activated ester)  
 RN 220288-82-4 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(2-methylphenyl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 220288-85-7 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 16 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 04 Nov 1998  
 ACCESSION NUMBER: 1998:699952 HCAPLUS  
 DOCUMENT NUMBER: 130:38037  
 TITLE: Anchimeric assistance in the rearrangement of dichloro-3-methyl-1,4-oxathianes to 2-chloromethyl dihydro-1,4-oxathians  
 AUTHOR(S): Hahn, Hoh-Gyu; Choi, Joong-Kwon; Nam, Kee Dal  
 CORPORATE SOURCE: Org. Chem. Lab, Korea Institute of Science and Technology, Seoul, 136-791, S. Korea  
 SOURCE: Bulletin of the Korean Chemical Society (1998), 19(10), 1109-1112  
 CODEN: BKCSDE; ISSN: 0253-2964  
 PUBLISHER: Korean Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



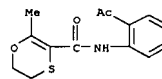
AB Anchimeric assistance of anilide in the rearrangement of dichloro-1,4-oxathianes I (R = OMe, NHPh, NHC6H4OMe-2, NHC6H4OMe-4, NHC6H4OMe-2, NHC6H4OMe-4, NHC6H4NO2-2, NHC6H4NO2-4) to 2-chloromethyl dihydro-1,4-oxathians II is described. The inductive effect of the carbonyl group in I was negligible in the rearrangement. The rate of the rearrangement of I to II depended on the basicity of the anilide nitrogen.

Hydrogen bonding between the anilide hydrogen and ortho-substituents in I (R = NHC6H4OMe-2, NHC6H4OMe-4, NHC6H4NO2-2) decrease the basicity of the anilide nitrogen and the rate of rearrangement of I to II.

IT 216690-65-2P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of methylchlorooxathianecarboxylates and carboxamides and

anchimeric assistance in their rearrangement to chloromethyloxathians)

RN 216690-65-2 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2-acetylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)



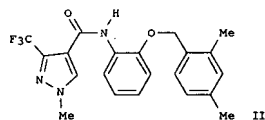
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
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L12 ANSWER 16 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

GI



AB R1C(X)NH212R [I: R = (un)substituted (hetero)aryl; R1 = (hetero)aryl; X =

O or S; Z = alk(en)ylene, CO, OCH2, CH2O, CH(OH), etc.; Z1 = (un)substituted 1,2-phenylene] were prepared. Thus, 1-methyl-3-trifluoromethylpyrazole-4-carbonyl chloride was amidated by 2-(H2N)C6H4OH and the product etherified by 2,4-Me2C6H3CH2Cl to give title compound II.

IT 202398-63-8P 202398-64-9P 202398-65-0P

202399-02-8P 202399-06-2P 202399-11-9P

202399-23-3P 202399-31-3P 202399-56-2P

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202399-90-4P 202399-92-6P 202399-93-7P

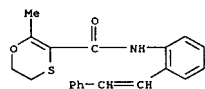
202400-72-4P 202400-73-5P 202400-74-6P

202400-83-7P 202400-85-9P

RI: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of pyrazole-4-carboxanilides and analogs as agrochem. microbicides and pesticides)

RN 202398-63-8 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)



RN 202398-64-9 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(2-phenylethenyl)phenyl]-, 4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 11 Feb 1998

ACCESSION NUMBER: 1998:79728 HCAPLUS

128:140699

TITLE: Preparation of pyrazole-4-carboxanilides and analogs as agrochemical microbicides and pesticides  
Elbe, Hans-Ludwig; Krueger, Bernd-Wieland; Markert, Robert; Tiemann, Ralf; Kuhn, Dietmar; Dutzmann, Stefan; Stenzel, Klaus; Erdelen, Christoph; Kugler, Martin; Buschhaus, Hans-Ulrich

PATENT ASSIGNEE(S): Bayer A.-G., Germany

SOURCE: Ger. Offen., 72 pp.

CODEN: GWXXBX

PATENT: German

LANGUAGE: German

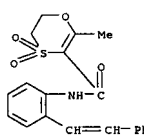
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19629828	A1	19980129	DE 1996-19629828	19960724
WO 9803500	A1	19980129	WO 1997-EP3694	19970711
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9734441	A	19980210	AU 1997-34441	19970711
EP 915868	A1	19990519	EP 1997-930522	19970711
EP 915868	B1	20041208		
R: BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, PT				
BR 9710400	A	19990817	BR 1997-10400	19970711
CN 1226244	A	19990818	CN 1997-196717	19970711
HU 9903691	A2	20000428	HU 1999-3691	19970711
JP 2000516917	T	20001219	JP 1998-506506	19970711
RU 2194704	C2	20021220	RU 1999-104181	19970711
EP 143045	A1	20040804	EP 2004-9928	19970711
R: BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, PT				
PT 915868	T	20050531	PT 1997-930522	19970711
ES 2232872	T3	20050601	ES 1997-930522	19970711
US 6319940	B1	20011120	US 1999-230162	19990120
US 6534532	B1	20030318	US 2001-955783	20010918
US 2003078287	A1	20030424	US 2002-158602	20020530
US 6716881	B2	20040406		
PRIORITY APPLN. INFO.:				
			DE 1996-19629828	A 19960724
			EP 1997-930522	A3 19970711
			WO 1997-EP3694	W 19970711
			US 1999-230162	A3 19990120
			US 2001-955783	A3 20010918

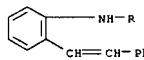
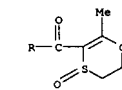
OTHER SOURCE(S): CASREACT 128:140699; MARPAT 128:140699

L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



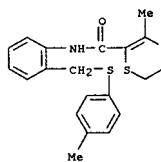
RN 202398-65-0 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(2-phenylethenyl)phenyl]-, 4-oxide (9CI) (CA INDEX NAME)



RN 202399-02-8 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[(4-methylphenyl)thio]methyl]phenyl]- (9CI) (CA INDEX NAME)

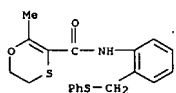


RN 202399-06-2 HCAPLUS

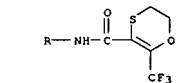
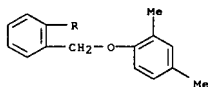
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[(phenylthio)methyl]phenyl]- (9CI) (CA INDEX NAME)

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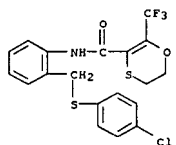
L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 202399-11-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
N-[2-[(2,4-dimethylphenoxy)methyl]phenyl]-5,6-  
dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

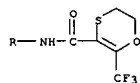
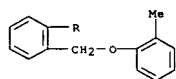


RN 202399-23-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
N-[2-[(4-chlorophenyl)thio]methyl]phenyl]-5,6-  
dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

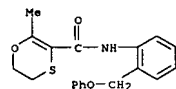


RN 202399-31-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
N-[2-[(4-chlorophenyl)thio]methyl]phenyl]-5,6-  
dihydro-2-methyl- (9CI) (CA INDEX NAME)

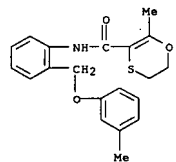
L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 202399-88-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-  
(phenoxymethyl)phenyl]- (9CI) (CA INDEX NAME)

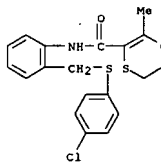


RN 202399-90-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[(2-  
methylphenoxy)methyl]phenyl]- (9CI) (CA INDEX NAME)

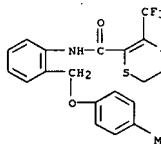


RN 202399-92-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[(2-  
methylphenoxy)methyl]phenyl]- (9CI) (CA INDEX NAME)

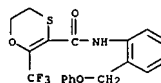
L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 202399-56-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-[(4-  
methylphenoxy)methyl]phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

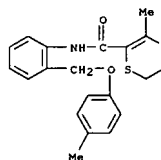


RN 202399-63-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-(phenoxymethyl)phenyl]-2-  
(trifluoromethyl)- (9CI) (CA INDEX NAME)

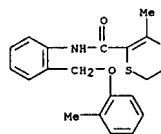


RN 202399-80-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-[(2-  
methylphenoxy)methyl]phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

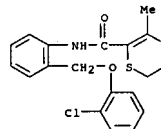
L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 202399-93-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[(2-  
methylphenoxy)methyl]phenyl]- (9CI) (CA INDEX NAME)



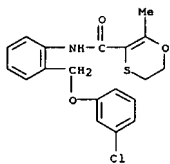
RN 202400-72-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-[(2-chlorophenoxy)methyl]phenyl]-5,6-  
dihydro-2-methyl- (9CI) (CA INDEX NAME)



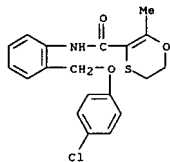
RN 202400-73-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-[(2-chlorophenoxy)methyl]phenyl]-5,6-  
dihydro-2-methyl- (9CI) (CA INDEX NAME)

10544897

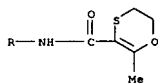
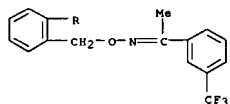
L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 202400-74-6 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[2-[(4-chlorophenoxy)methyl]phenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 202400-83-7 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[[[1-[3-(trifluoromethyl)phenyl]ethylidene]amino]oxy]methyl]phenyl]- (9CI) (CA INDEX NAME)



L12 ANSWER 18 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 10 Jan 1998

ACCESSION NUMBER: 1998:13933 HCAPLUS

DOCUMENT NUMBER: 128:75193

TITLE: Preparation of aminophthalic acid derivatives as pesticides.

INVENTOR(S): Elbe, Hans-Ludwig; Dutzmann, Stefan; Stenzel, Klaus

PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 110 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

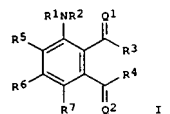
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9747589	A1	19971218	WO 1997-EP2845	19970602
W: AU, BB, BG, BR, BY, CA, CN, CZ, HU, IL, JP, KR, KZ, LK, MX, NO, NZ, PL, RO, RU, SK, TR, UA, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
DE 19623744	A1	19971218	DE 1996-19623744	19960614
AU 9730936	A	19980107	AU 1997-30936	19970602
PRIORITY APPLN. INFO.:				
			DE 1996-19623744	A 19960614
			WO 1997-EP2845	W 19970602

OTHER SOURCE(S): CASREACT 128:75193; MARPAT 128:75193

GI

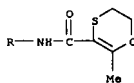
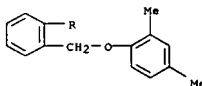


AB Use of title compds. [I; Q1, Q2 = O, S; R1 = H, R11CO; R2 = R8R9NCO, R10OCO, R11CO, R12SO2; R8 = H, alkyl, cycloalkyl, (substituted) aryl, heteroaryl; R9 = H, alkyl; R8R9N = (substituted) heterocyclyl; R10 = (substituted) alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclyl; R11 = H, (substituted) alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, aralkyl, heterocyclyl; R12 = alkyl, aryl, heterocyclyl; R1R2 = CR13R14; R1R2N = (substituted) heterocyclyl; R13 = H, alkyl, alkenyl, cycloalkyl, (substituted) aryl, heterocyclyl; R14 = H, alkyl, alkenyl, cycloalkyl, cycloalkenyl, aryl, heterocyclyl, alkoxy, dialkylamino; R13R14 = cycloalkylidene; R3, R4 = OH, alkoxy, alkenyloxy, alkynyloxy, aralkoxy, cycloalkoxy, cycloalkenyloxy, aryloxy, heterocycliyoxy, aralkylthio, SH, arylthio, amino, etc.; R5-R7 = H, halo, cyano, NO2, alkyl, alkoxy, alkylthio, haloalkyl, haloalkoxy, haloalkylthio] for combating pests is claimed. Thus, 3-nitrophthalic anhydride was heated with BuOH to give 88.1% 3-nitrophthalic acid 2-Bu ester. The latter was refluxed with DMF di-Me acetal in PhMe to give 92% 3-nitrophthalic acid 1-Me ester 2-Bu ester. This in H2O/THF was treated with Zn and HCl to give 82.4% 3-aminophthalic acid 1-Me ester 2-Bu ester. I at 100 ppm gave 82-98%

L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 202400-85-9 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-[2-[(2,4-dimethylphenoxy)methyl]phenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



L12 ANSWER 18 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

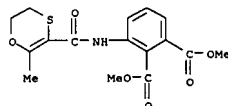
control of Botrytis cinerea on beans.

IT 200710-35-6P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of aminophthalic acid deriva. as pesticides)

RN 200710-35-6 HCAPLUS

CN 1,2-Benzenedicarboxylic acid, 3-[[[5,6-dihydro-2-methyl-1,4-oxathiin-3-yl]carbonyl]amino]-, dimethyl ester (9CI) (CA INDEX NAME)



10544897

L12 ANSWER 19 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 17 May 1995

ACCESSION NUMBER: 1995:556534 HCAPLUS

DOCUMENT NUMBER: 122:305988

TITLE: Oxathiin carboxanilide derivatives: a class of nonnucleoside HIV-1-specific reverse transcriptase inhibitors (NNRTIs) that are active against mutant HIV-1 strains resistant to other NNRTIs

AUTHOR(S): Balzarini, J.; Jonckheere, H.; Harrison, W. A.; Dao, D. C.; Anne, J.; De Clercq, E.; Karlsson, A.

CORPORATE SOURCE: Rega Institute Medical Research, Leuven, 3000, Belg.

SOURCE: Antiviral Chemistry & Chemotherapy (1995), 6(3), 169-78

CODEN: ACCHEH; ISSN: 0956-3202

PUBLISHER: Blackwell

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The HIV-1-specific oxathiin carboxanilide derivative 1-methylethyl 2-chloro-5-[[[5,6-dihydro-2-methyl-1,4-oxathiin-3-yl]carbonyl]amino]benzene (NSC 615985) (designated UC84) has potent activity against HIV-1 (IIB) (50% effective concentration: 0.015 µg mL<sup>-1</sup>).

UC84 was found to select for a 138-Lys mutant virus strain in HIV-1-infected CEM cell cultures. When the 138-Lys mutation was introduced solely in the p51 subunit of the p51/p66 reverse transcriptase (RT) heterodimer by site-directed mutagenesis, the enzyme proved 10-fold more resistant to UC84 than when the amino acid mutation was introduced solely in the p66 subunit of the p51/p66 RT heterodimer. These data provided clear evidence for a structural and functional role of the p51 subunit in the sensitivity/resistance of the enzyme to UC84. UC84 also proved to be virtually inactive against mutant HIV-1 strains containing

the 100-Ile, 106-Ala, 138-Lys or 181-Cys mutation in their RT. However, minor structural changes in the mol., such as replacement of the oxygen of the amide moiety by sulfur, or the iso-Pr ester moiety by cyclopentyl or a sec-Bu, or the Me group of the oxathiin part by Et, made the compound markedly more inhibitory to one or several HIV-1 mutant strains. For example, compound 131 (1-methylethyl

2-chloro-5-[[[5,6-dihydro-2-methyl-1,4-oxathiin-3-yl]thioxomethyl]amino]benzoate was only 2-fold more active than the parent compound UC84 against wild-type HIV-1, but 30- to 100-fold more inhibitory to HIV-1 mutant strains that contained the 100-Ile, 106-Ala, 138-Lys or 181-Cys in their RT. These findings should be taken into account when selecting suitable drug candidates for the treatment of HIV-1

infections, particularly those that have developed resistance to other non-nucleoside RT inhibitors (NNRTIs).

IT 135812-64-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(oxathiin carboxanilides: HIV-1-specific reverse transcriptase

L12 ANSWER 20 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 16 Oct 1993

ACCESSION NUMBER: 1993:560132 HCAPLUS

DOCUMENT NUMBER: 119:160132

TITLE: Anilide derivatives and their use to combat Botrytis

INVENTOR(S): Eicken, Karl; Goetz, Norbert; Harreus, Albrecht; Ammermann, Eberhard; Lorenz, Gisela; Rang, Harald

PATENT ASSIGNEE(S): BASF A.-G., Germany

SOURCE: Eur. Pat. Appl., 60 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 545099	A2	19930609	EP 1992-119105	19921107
EP 545099	A3	19931124		
EP 545099	B1	19970305		
CA 2081935	A1	19930523	GB, GR, IE, IT, LI, NL, PT, SE	19921102
CA 2081935	C	20040525		
IL 103614	A	19980924	IL 1992-103614	19921102
AT 149487	T	19970315	AT 1992-119105	19921107
ES 2098421	T	19970501	ES 1992-119105	19921107
US 5330995	A	19940719	US 1992-973976	19921109
JP 05221994	A	19930831	JP 1992-303337	19921113
JP 3202079	B2	20010827		
AU 9228554	A	19930527	AU 1992-28554	19921120
AU 656243	B2	19950127		
HU 62861	A2	19930628	HU 1992-3653	19921120
HU 213622	B	19970828		
ZA 9208977	A	19940519	ZA 1992-8977	19921120
PL 171304	B1	19970328	PL 1992-296677	19921120
SK 281730	B6	20010710	SK 1992-3448	19921120
CZ 289478	B6	20020116	CZ 1992-3448	19921120
US 5480897	A	19960102	US 1994-215463	19940321
US 5556988	A	19960917	US 1995-472927	19950607
US 5589493	A	19961231	US 1995-478681	19950607
JP 2001253802	A	20010918	JP 2001-85276	20010323
JP 3657523	B2	20050608		
JP 2001316210	A	20011113	JP 2001-85342	20010323
JP 3660890	B2	20050615		

PRIORITY APPLN. INFO.:

DE 1991-4138387	A	19911122
DE 1992-4204764	A	19920218
DE 1992-4204766	A	19920218
DE 1992-4204767	A	19920218
DE 1992-4204768	A	19920218
US 1992-973976	A3	19921109
JP 1992-303337	A3	19921113
US 1994-215463	A3	19940321

OTHER SOURCE(S): MARPAT 119:160132

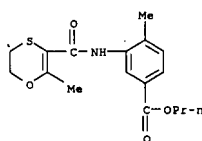
L12 ANSWER 19 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

inhibition and prepn.)

RN 135812-64-5 HCAPLUS

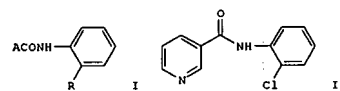
CN Benzoic acid,

3-[[[5,6-dihydro-2-methyl-1,4-oxathiin-3-yl]carbonyl]amino]-4-methyl-, propyl ester (9CI) (CA INDEX NAME)



L12 ANSWER 20 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

GI



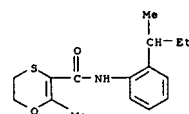
AB The use of the title compds. I (A = heteroaryl; R = haloalkyl, halo, alkenyl, alkoxy, etc.) for the inhibition of Botrytis is claimed. Treatment of N-propylaniline with 2-chloronitrobenzyl chloride gave N-(2-chlorophenyl)-3-pyridinamide (II). II had fungicidal activity against Botrytis cinerea.

IT 149708-39-4P 149708-40-7P 149708-42-9P 149708-43-0P 149708-44-1P 149708-45-2P 149708-71-4P 149708-72-5P 149708-74-7P 149708-75-6P 149708-76-9P 149708-77-0P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of, as agrochem. fungicide)

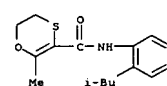
RN 149708-39-4 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(1-methylpropyl)phenyl]- (9CI) (CA INDEX NAME)



RN 149708-40-7 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(2-methylpropyl)phenyl]- (9CI) (CA INDEX NAME)

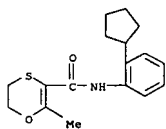


RN 149708-42-9 HCAPLUS

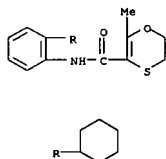
CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclopentylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

10544897

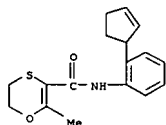
L12 ANSWER 20 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 149708-43-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclohexylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

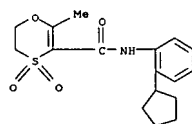


RN 149708-44-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(2-cyclopenten-1-yl)phenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

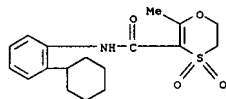


RN 149708-45-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(2-cyclohexen-1-yl)phenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

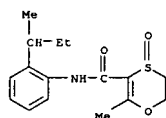
L12 ANSWER 20 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



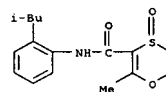
RN 149708-75-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclohexylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



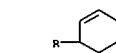
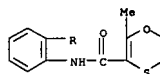
RN 149708-76-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(1-methylpropyl)phenyl]-, 4-oxide (9CI) (CA INDEX NAME)



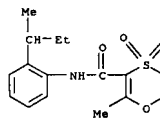
RN 149708-77-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(1-methylpropyl)phenyl]-, 4-oxide (9CI) (CA INDEX NAME)



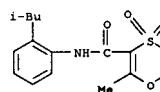
L12 ANSWER 20 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 149708-71-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(1-methylpropyl)phenyl]-, 4,4-dioxide (9CI) (CA INDEX NAME)



RN 149708-72-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(1-methylpropyl)phenyl]-, 4,4-dioxide (9CI) (CA INDEX NAME)



RN 149708-74-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclopentylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 21 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 23 Sep 1991

ACCESSION NUMBER: 1991:514520 HCAPLUS

DOCUMENT NUMBER: 115:114520

TITLE: Treatment of HIV infections and compounds useful therein

INVENTOR(S): Harrison, William A.; Jewell, Gary E.; Felauer, Ethel E.; Dekeyser, Mark A.; Cong, Dong D.; McGuinness, James

JAMES: A.; Mishra, Anupama; Brouwer, Walter G.; McPhee, Derek

PATENT ASSIGNEE(S): J. Uniroyal Chemical Ltd., Can.; Uniroyal Chemical Co., Inc.

SOURCE: PCT Int. Appl., 187 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

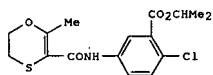
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9105761	A1	19910502	WO 1990-US5760	19901009
W: AU, BR, CA, FI, HU, JP, KR, NO, SU				
RU: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
US 5268389	A	19931207	US 1990-588208	19900926
CA 2067381	A1	19910417	CA 1990-2067381	19901009
CA 2067381	C	20040406		
AU 9066035	A	19910516	AU 1990-66035	19901009
AU 636409	B2	19930429		
ZA 9008094	A	19910828	ZA 1990-8094	19901009
BR 9007758	A	19920811	BR 1990-7758	19901009
EP 497816	A1	19920812	EP 1990-915588	19901009
EP 497816	B1	19950517		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
HU 60713	A2	19921028	HU 1992-1258	19901009
HU 220759	B1	20020528		
JP 04507422	T	19921224	JP 1990-514569	19901009
JP 06102641	B	19941214		
RU 2108785	C1	19980420	RU 1990-5011885	19901009
IL 95956	A	19960331	IL 1990-95956	19901010
CN 1051036	A	19910501	CN 1990-108426	19901016
US 5693827	A	19971202	US 1995-485291	19950607
PRIORITY APPLN. INFO.:			US 1989-421155	A 19891016
			US 1990-567982	A 19900815
			US 1990-588208	A 19900926
			WO 1990-US5760	A 19901009
			US 1993-98978	B3 19930728

OTHER SOURCE(S): MARPAT 115:114520

GI

10544897

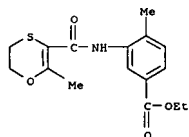
L12 ANSWER 21 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



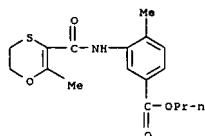
AB Numerous potential antiviral (thio)amidobenzoates RC(X)NHC6HnR14-nCO2R2 (R = (un)substituted 1,4-oxathiin-3-yl, furyl, Ph, 1,4-dithiin-2-yl; R1 = Cl, F, OH; R2 = alkyl; X = O, S) and related compds. were prepared. Thus, amidobenzoate I was prepared by reaction of 5,6-dihydro-2-methyl-1,4-oxathiin-3-carbonyl chloride and 2,5-di-(H2N)C6H3CO2CHMe2.

IT 135812-16-7P 135812-64-5P 135813-23-9P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as human immunodeficiency virus inhibitor)

RN 135812-16-7 HCAPLUS  
 CN Benzoic acid,  
 3-[[[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]amino]-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)]



RN 135812-64-5 HCAPLUS  
 CN Benzoic acid,  
 3-[[[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]amino]-4-methyl-, propyl ester (9CI) (CA INDEX NAME)]



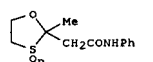
RN 135813-23-9 HCAPLUS  
 CN Benzoic acid, 2-chloro-5-[[2-[[[(5,6-dihydro-2-methyl-1,4-oxathiin-3-

L12 ANSWER 22 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1982:217860 HCAPLUS  
 DOCUMENT NUMBER: 96:217860  
 TITLE: 5,6-Dihydro-2-methyl-N-phenyl-1,4-oxathiin-3-carboxamide  
 INVENTOR(S): Znotins, Andrew A.; Brewer, Arthur D.  
 PATENT ASSIGNEE(S): Uniroyal Ltd., Can.  
 SOURCE: Can., 25 pp. Division of Can. Appl. No. 310,606.  
 CODEN: CAXXA4  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:

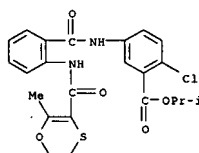
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 1118429	A2	19820216	CA 1981-371748	19810225
CA 1109073	A1	19810915	CA 1978-310606	19780905
HU 24629	A2	19830328	HU 1979-UI283	19790904
HU 182614	B	19840228		
IL 58177	A	19840831	IL 1979-58177	19790904
DK 7903709	A	19800306	DK 1979-3709	19790905
DK 154767	B	19881219		
DK 154767	C	19890605		
AU 7950603	A	19800417	AU 1979-50603	19790905
AU 526670	B2	19830127		
EP 10843	A1	19800514	EP 1979-301827	19790905
EP 10843	B1	19831109		
R: DE, FR, GB, IT, NL				
ZA 7904694	A	19800827	ZA 1979-4694	19790905
DD 146599	A5	19810218	DD 1979-215367	19790905
EP 42182	A2	19811223	EP 1981-106224	19790905
EP 42182	A3	19811230		
R: DE, FR, GB, IT, NL				
CS 215123	B2	19820730	CS 1979-6017	19790905
CS 215124	B2	19820730	CS 1981-458	19790905
PL 124628	B1	19830228	PL 1979-218135	19790905
SU 1029828	A3	19830715	SU 1979-2806608	19790905
JP 56099469	A	19810810	JP 1980-167336	19801127
JP 56099470	A	19810810	JP 1980-167337	19801127
PRIORITY APPLN. INFO.:				
			CA 1978-310606	A3 19780905
			CA 1979-334458	A 19790827
			EP 1979-301827	A 19790905

OTHER SOURCE(S): CASREACT 96:217860  
 GI



AB The title compound was prepared in 63% overall yield by treating MeCOCH2CONHPh with HSCCH2CH2CH2OH to give I (n = 0) which oxidized with H2O2 and PhMe in

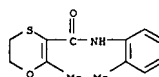
L12 ANSWER 21 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
 yl)carbonyl]amino]benzoyl]amino]-, 1-methylethyl ester (9CI) (CA INDEX NAME)]



L12 ANSWER 22 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
 the presence of Na2WO4, followed by ring enlargement of I (n = 1) with Bu4N+BF4-.

IT 6577-30-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 6577-30-6 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)- (9CI) (CA INDEX NAME)]



10544897

L12 ANSWER 23 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1980:141624 HCAPLUS

DOCUMENT NUMBER: 92:141624

TITLE: A molecular receptor model for carboxin

AUTHOR(S): Schewe, T.; Mueller, W.; Lyr, H.; Zanke, D.

CORPORATE SOURCE: Inst. Physiol. Biol. Chem., Humboldt-Univ. Berlin, Berlin, Ger. Dem. Rep.

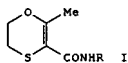
SOURCE: Abhandlungen der Akademie der Wissenschaften der DDR, Abteilung Mathematik, Naturwissenschaften, Technik (1979), (2N, Vortr. Int. Sym p.: Systemfungiz., Sth, 1977), 241-51

CODEN: AAWTD2; ISSN: 0138-1059

DOCUMENT TYPE: Journal

LANGUAGE: German

GI



AB Data are given on the in vitro effect of 24 carboxin [5234-68-4] deriva. and analogs I (R = H, tert-Bu, cyclopentyl, cyclohexyl, Ph, substituted Ph,  $\alpha$ -naphthyl, etc) and R'CONHPh (R' = 2-methyl-1,4-oxanthiin-3-yl, o-tolyl, o-hydroxyphenyl, 2-methyl-1,4-oxanthiin-3-yl dioxide, etc) on succinate cytochrome c reductase [9028-10-8] from cattle heart mitochondrial nonphosphorylating electron-transport particles (Mueller, W., et al., 1977). The succinate dehydrogenase subunit high-potential Fe-S protein (Fe S-center S3) seems to be the specific receptor, and the interaction seems to involve the hydrophobic group at the amide-N, the 2-cis-Me of the oxathiin cycle, and the vinyllogous CO group. A model is given, by which the electrophilic C of the  $\alpha$ - $\beta$ -unsatd. CO group is bound to the cysteine-S of the Fe-S cluster, whereas the N and O are bound coordinatively to 2 different Fe atoms of the cluster.

6577-30-6 6577-34-0

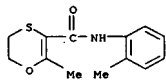
IT RL: PROC (Process)

(binding of, to succinate dehydrogenase high-potential iron-sulfur protein, mol. receptor model in relation to)

RN 6577-30-6 HCAPLUS

CN 1,4-Oxanthiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)- (9CI)

(CA INDEX NAME)



L12 ANSWER 24 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1980:71049 HCAPLUS

DOCUMENT NUMBER: 92:71049

TITLE: Fungicidal and bactericidal composition

INVENTOR(S): Von Schmeling, Bogislav; Kulka, Marshall; Thiara,

Dalel Singh; Harrison, William Ashley

PATENT ASSIGNEE(S): Uniroyal, Inc., USA; Uniroyal Ltd.

SOURCE: Rom., 15 pp.

CODEN: RUXXA3

DOCUMENT TYPE: Patent

LANGUAGE: Romanian

FAMILY ACC. NUM. COUNT: 1

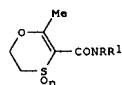
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RO 61104	A2	19771010	RO 1971-68189	19710911

PRIORITY APPLN. INFO.:

RO 1971-68189 19710911

GI



AB The oxathiin deriva. I (R = alkyl, cycloalkyl, aralkyl, or aryl; R' = H, alkyl, or substituted alkyl; n = 1 or 2) are systemic bactericides and fungicides. Thus, soil application of 5 ppm

2,3-dihydro-5-carboxanilido-6-methyl-1,4-oxathiin 4,4-dioxide [5259-88-1] at sowing controlled bean rust caused by artificial Rhizoctonia solani infestation. The synthesis of I is given.

17757-73-2P 17757-76-5P 17757-78-7P

17757-79-8P 17757-91-4P 17757-93-6P

17757-94-7P 17757-98-1P 17758-04-2P

17758-05-3P 17762-58-2P 17762-75-3P

17762-76-4P 17946-62-2P

RL: BAC (Biological activity or effector, except adverse); BSU

(Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological

study); PREP (Preparation)

(preparation and bactericidal and fungicidal activity of)

RN 17757-73-2 HCAPLUS

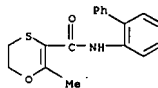
CN 1,4-Oxanthiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-,

4-oxide (9CI) (CA INDEX NAME)

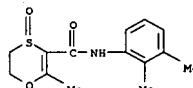
L12 ANSWER 23 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 6577-34-0 HCAPLUS

CN 1,4-Oxanthiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

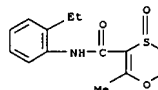


L12 ANSWER 24 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



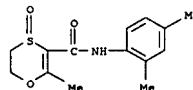
RN 17757-76-5 HCAPLUS

CN 1,4-Oxanthiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-, 4-oxide (9CI) (CA INDEX NAME)



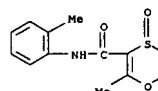
RN 17757-78-7 HCAPLUS

CN 1,4-Oxanthiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-, 4-oxide (9CI) (CA INDEX NAME)



RN 17757-79-8 HCAPLUS

CN 1,4-Oxanthiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-, 4-oxide (9CI) (CA INDEX NAME)

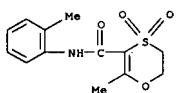


RN 17757-91-4 HCAPLUS

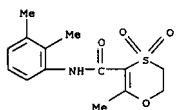
CN 1,4-Oxanthiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-, 4,4-dioxide (9CI) (CA INDEX NAME)

10544897

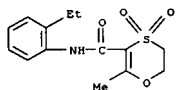
L12 ANSWER 24 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



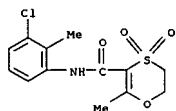
RN 17757-93-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



RN 17757-94-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

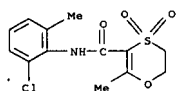


RN 17757-98-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

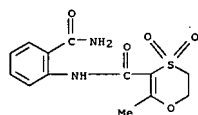


RN 17758-04-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 24 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

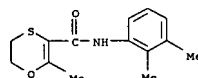


RN 17946-62-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-(aminocarbonyl)phenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

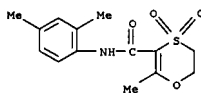


IT 13582-78-0P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and oxidation of)

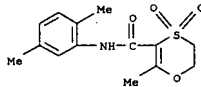
RN 13582-78-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



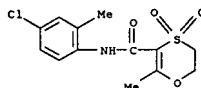
L12 ANSWER 24 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



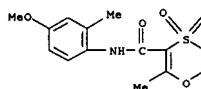
RN 17758-05-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,5-dimethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



RN 17762-58-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



RN 17762-75-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4-methoxy-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



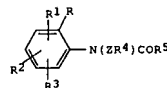
RN 17762-76-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-chloro-6-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 25 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STM: 12 May 1984  
ACCESSION NUMBER: 1979:54799 HCAPLUS  
DOCUMENT NUMBER: 90:54799  
TITLE: Heterocyclic carboxylic acid anilides  
INVENTOR(S): Hubele, Adolf  
PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.  
SOURCE: Patentschrift (Switz.), 17 pp.  
CODEN: SWXXAS  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CH 606029	A5	19781013	CH 1977-15061	19750210
PRIORITY APPLN. INFO.:			CH 1977-15061	A 19750210

GI



AB The anilides I [R = Cl-4 alkyl or alkoxy, halogen; R1 = R2 = H, Cl-3 alkyl, halogen; R3 = H, Me; Z = CH2, CHMe; R4 = (esterified) CO2H, (substituted) CONH2; R5 = (Me- or halogen-substituted) 5- or 6-membered heterocycle with 1 or 2 hetero atoms] were prepared for use as

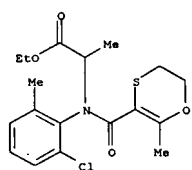
phytopathol. fungicides (no data). Thus, 2,6-Me2C6H5NH2 reacted with 2-furoyl chloride, and the product was treated with BrCHMeCO2Me to give I (R = Me, R1 = R2 = H, R3 = 6-Me, ZR4 = CHMeCO2Me, R5 = 2-furyl).

IT 58185-00-5P 58185-01-6P 58185-02-7P  
58185-04-9P 58185-15-2P  
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

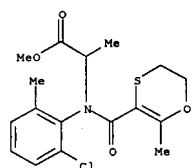
RN 58185-00-5 HCAPLUS  
CN Alanine, N-(2-chloro-6-methylphenyl)-N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

10544897

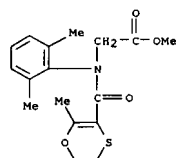
L12 ANSWER 25 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



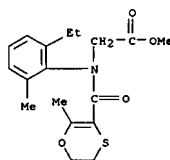
RN 58185-01-6 HCAPLUS  
CN Alanine,  
N-((2-chloro-6-methylphenyl)-N-((5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl)-, methyl ester (9CI) (CA INDEX NAME)



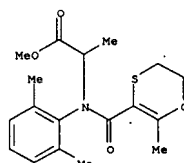
RN 58185-02-7 HCAPLUS  
CN Glycine, N-((5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl)-N-(2,6-dimethylphenyl)-, methyl ester (9CI) (CA INDEX NAME)



RN 58185-04-9 HCAPLUS  
CN Glycine,  
N-((5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl)-N-(2-ethyl-6-

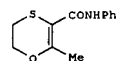
L12 ANSWER 25 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
methylphenyl)-, methyl ester (9CI) (CA INDEX NAME)

RN 58185-15-2 HCAPLUS  
CN Alanine, N-((5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl)-N-(2,6-dimethylphenyl)-, methyl ester (9CI) (CA INDEX NAME)



L12 ANSWER 26 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984  
ACCESSION NUMBER: 1979:17500 HCAPLUS  
DOCUMENT NUMBER: 90:17500  
TITLE: Oxathiin carboxamides highly active against carboxin-resistant succinic dehydrogenase complexes from carboxin-selected mutants of Ustilago maydis and Aspergillus nidulans  
AUTHOR(S): White, G. A.; Thorn, G. D.; Georgopoulos, S. G.  
CORPORATE SOURCE: Res. Inst., Agric. Canada, London, ON, Can.  
SOURCE: Pesticide Biochemistry and Physiology (1978), 9(2), 165-82  
CODEN: PCBPBS; ISSN: 0048-3575  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



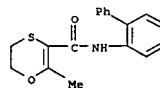
AB Succinate dehydrogenase [9002-02-2] complex (SDC) of certain oxathiin carboxamides were selectively active against a particular mutated U. maydis and A. nidulans. Mol. structures affecting the phenotypic expression of mutation to carboxin (I) [5234-68-4] resistance in U. maydis did not appear to affect similarly such expression in A. nidulans and vice versa. Of particular interest was the discovery of oxathiin carboxamides, e.g., 4'-phenylcarboxin [13582-42-8], which were more inhibitory to the enzyme complex from one category of I-resistant mutants of U. maydis than from the wild-type strain. Although such neg. correlation between I and other I analogs was not observed in studies

with other categories of mutants, structures which drastically lower the resistance level were found in all cases. It appears that for any given mutation affecting I sensitivity of the SDC in fungi, a specific structural group of carboxamides (or even a specific carboxamide) may be found which will alleviate or reverse the effect of the mutation in terms of inhibition of the SDC. If the mutations alter a protein receptor site for carboxamides, such mutations might be expected to influence the binding of I of different structure. In essence, then, different mol. structures can recognize different alterations in the mutated enzyme complex and inhibit effectively. With a few exceptions, the inhibition

by carboxamides of cell growth of wild-type and I-resistant strains of U. maydis and A. nidulans closely paralleled the inhibition of their resp. SDCs. Although the few analogs tested were found unable to control corn smut systemically in seedlings artificially inoculated with compatible I-resistant strains, control of naturally occurring I-resistant strains

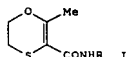
of pathogenic fungi may be possible using particular structural analogs of I which selectively inhibit the mutant organisms.

IT 6577-34-0P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, and inhibition of succinic dehydrogenase from Aspergillus and Ustilago resistant to carboxin)  
RN 6577-34-0 HCAPLUS

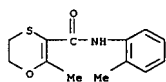
L12 ANSWER 26 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

10544897

L12 ANSWER 27 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1978:70338 HCAPLUS  
 DOCUMENT NUMBER: 88:70338  
 TITLE: Detoxification of carboxins  
 AUTHOR(S): Lyr, Horst; Ritter, G.; Polter, C.  
 CORPORATE SOURCE: Inst. Pflanzenschutzforsch., DAW, Kleinmachnow, Ger.  
 SOURCE: Dem. Rep. Systemfungiz., Int. Symp. (1975), Meeting Date 1974, 167-76. Editor(s): Lyr, Horst; Polter, C. Akad.-Verlag: Berlin, E. Ger.  
 DOCUMENT TYPE: CODEN: 37FLAE  
 LANGUAGE: Conference  
 GI German

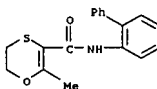


AB Carboxin (I, R = Ph) [5234-68-4] was oxidized by *Ustilago zeae* to carboxin sulfoxide [17757-70-9], especially in light. Some oxidation was shown by *Trametes versicolor* and *Aspergillus niger* mitochondria. I (R = Ph) was also oxidized by riboflavin [83-88-5] in light. Cleavage of various I derivs. by barley aryl acyl amidase [9025-18-7] at pH 7.5, dependent on the substituent R, and was in the increasing order R = Ph, m-MeC6H4, o-CIC6H4, p-MeC6H4, p-ClC6H4, o-PhC6H4, p-O2NC6H4, α-naphthyl, and o-MeC6H4. Barley aryl acyl amidase was characterized using o-chloropropionanilide [2760-32-9] as a substrate.  
 IT 6577-30-6 6577-34-0  
 RL: RCT (Reactant); RACT (Reactant or reagent) (hydrolysis of, by aryl acyl amidase, carboxin stability in relation to)  
 RN 6577-30-6 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)- (9CI)  
 (CA INDEX NAME)

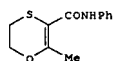


RN 6577-34-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 27 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

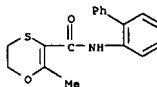


L12 ANSWER 28 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1978:70337 HCAPLUS  
 DOCUMENT NUMBER: 88:70337  
 TITLE: The problem of selectivity as well as structure-receptor relationship of carboxin and its analogs  
 AUTHOR(S): Lyr, Horst; Schewe, T.; Mueller, W.; Zanke, D.  
 CORPORATE SOURCE: Inst. Pflanzenschutzforsch., DAW, Kleinmachnow, Ger.  
 SOURCE: Dem. Rep. Systemfungiz., Int. Symp. (1975), Meeting Date 1974, 153-66. Editor(s): Lyr, Horst; Polter, C. Akad.-Verlag: Berlin, E. Ger.  
 DOCUMENT TYPE: CODEN: 37FLAE  
 LANGUAGE: Conference  
 GI German



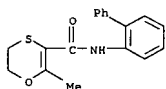
AB Evidence is presented, together with literature data, in support of a site of attack for carboxin (I) [5234-68-4] at the complex II-associated Fe-S-protein (FeSPP) (Schewe, T., et al, 1973), situated after succinate dehydrogenase in the respiratory chain. I inhibits the electron transfer from the reduced FeSPP to ubiquinone and cytochromes b. I is an inhibitor of both the main and alternate respiratory pathway. *Rhodotorula mucilaginosa* was used to obtain data on respiration inhibition by I together with that by antimycin A, TTPA (2-theonyltrifluoroacetone) and 8-hydroxyquinoline. Inhibition of the succinic dehydrogenase activity in mitochondria and ETP (electron transport particles) from the I-sensitive *Trametes versicolor* and I-resistant *Trichoderma viride* were tested for I and I derivs. Effects on succinate cytochrome c reductase and NADH oxidase of cattle heart ETP were also tested. The activity of the I derivs. on the cattle heart and *T. versicolor* ETP showed moderate correlation to the hydrophobicity parameter (octanol-H<sub>2</sub>O partition) of the same derivs. No such correlation was shown for *T. viride*. Selectivity of I activity is probably due primarily to receptor affinity rather than hydrophobicity. Structure-receptor interactions are discussed.  
 IT 6577-34-0  
 RL: BIOL (Biological study) (biol. electron transfer systems response to, fungicidal mechanism of action in relation to)  
 RN 6577-34-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 28 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



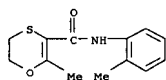
10544897

L12 ANSWER 29 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1978:59279 HCAPLUS  
 DOCUMENT NUMBER: 88:59279  
 TITLE: The inhibition of chitin synthesis in vivo  
 AUTHOR(S): Ritter, G.  
 CORPORATE SOURCE: Inst. Forstwiss., Eberswalde, Ger. Dem. Rep.  
 SOURCE: Systemfungiz., Int. Symp. (1975), Meeting Date 1974, 203-8. Editor(s): Lyr, Horst; Polter, C. Akad.-Verlag: Berlin, E. Ger.  
 CODEN: 37FLAE  
 CONFERENCE  
 DOCUMENT TYPE: German  
 LANGUAGE: German  
 AB Of 20 fungicides tested, Nystatin [1400-61-9] and aureofungin [8065-41-6] showed the highest inhibition of chitin [1398-61-4] biosynthesis in *Rhodotorula rubra*, in vivo. Aureofungin at 10<sup>-7</sup>M inhibited chitin biosynthesis by 50%, but caused only slight inhibition of glucosamine-3H uptake, by *R. rubra*. This, together with earlier findings, suggests a mechanism which does not involve strong membrane destruction.  
 IT 6577-34-0  
 RL: BIOL (Biological study)  
 (chitin formation inhibition by, in *Rhodotorula rubra*)  
 RN 6577-34-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

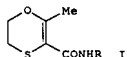


L12 ANSWER 30 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

IT 6577-30-6  
 RL: BIOL (Biological study)  
 (respiratory enzymes inhibition by, in cattle heart mitochondrial particles, receptors in fungi in relation to)  
 RN 6577-30-6 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)- (9CI)  
 (CA INDEX NAME)



L12 ANSWER 30 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1978:32999 HCAPLUS  
 DOCUMENT NUMBER: 88:32999  
 TITLE: Effective mechanisms of respiratory inhibition by the fungicides of the carboxin group. Effect of oxathiin derivatives and analogs on nonphosphorylating submitochondrial particles from beef heart  
 AUTHOR(S): Mueller, W.; Schewe, T.; Lyr, H.; Zanke, D.  
 CORPORATE SOURCE: Inst. Physiol. Biol. Chem., Humboldt-Univ., Berlin, Ger. Dem. Rep.  
 SOURCE: Zeitschrift fuer Allgemeine Mikrobiologie (1977), 17(5), 359-72  
 CODEN: ZAPQAK; ISSN: 0044-2208  
 DOCUMENT TYPE: Journal  
 LANGUAGE: German  
 GI

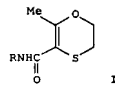


AB The inhibitory activity of carboxin (I, R = Ph) [5234-68-4] and of 22 derivs. and analogs, such as I (R = H, cycloalkyl, α-naphthyl, substituted Ph, etc.) was tested on the succinate-cytochrome c reductase [9028-10-8] and NADH oxidase [9032-21-7] of nonphosphorylating electron-transport particles (ETP) from cattle-heart mitochondria. Some were also tested on particulate succinic dehydrogenase [9002-02-2] of the carboxin-sensitive *Trametes versicolor* and carboxin-resistant *Trichoderma viride*. The inhibitory activity of I on ETP cytochrome c oxidoreductase correlated well with that on succinic dehydrogenase of *Trametes versicolor*, but not with that on succinic dehydrogenase of *Trichoderma viride*. Thus, cattle-heart ETP is a suitable model for carboxin receptors. Low correlation was shown between the activity of I on cytochrome c oxidoreductase and the hydrophobicity parameter lg P of I (P is the octanol to water distribution coefficient). Electronic and steric effects were also evident. A multicenter mechanism is suggested for the receptor-binding of I. Mechanism of resistance to I is discussed.  
 IT 6577-34-0  
 RL: BIOL (Biological study)  
 (respiratory enzymes inhibition by, in cattle heart mitochondrial particles, receptors in fungi in relation to)  
 RN 6577-34-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

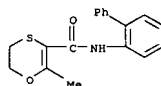
L12 ANSWER 31 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1976:164796 HCAPLUS  
 DOCUMENT NUMBER: 84:164796  
 TITLE: N-Substituted amides of 2,3-dihydro-6-methyl-1,4-oxathiin-5-carboxylic acid  
 INVENTOR(S): Eckstein, Zygmunt; Ejmowski, Zdzislaw; Fulde, Stefan; Kwiatkowski, Marian; Sawicki, Konrad; Tippe, Andrzej  
 PATENT ASSIGNEE(S): Politechnika Warszawska, Pol.  
 SOURCE: Pol., 4 pp.  
 CODEN: POXXA7  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Polish  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PL 76496	A5	19750228	PL 1971-146555	19710301
PRIORITY APPLM. INFO.:			PL 1971-146555	A 19710301

GI



AB Fungicidal 1,4-oxathiins (I, R = Ph, 2-BrC6H4, 2,4-F2C6H3, 2-PhC6H4, o-MeOC6H4) were prepared. Thus, 2,3-dihydro-6-methyl-1,4-oxathiin-5-carboxylic acid in Me2CO-dioxane was treated with NMe3 at -10° and then with EtO2CCl and PhNH2 at -10° to -5° to give I (R = Ph).  
 IT 6577-34-0P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 6577-34-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



10544897

L12 ANSWER 32 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1976:58964 HCAPLUS

DOCUMENT NUMBER: 81:58964

TITLE: Microbiocidal and plant growth regulating anilines

INVENTOR(S): Hubele, Adolf

PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.

SOURCE: Ger. Offen., 46 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2513732	A1	19751016	DE 1975-2513732	19750327
DE 2513732	C2	19880414		
CH 590608	A5	19770815	CH 1974-4572	19740402
CH 603041	A5	19780815	CH 1975-1591	19750210
DK 7501358	A	19751003	DK 1975-1358	19750326
DK 141168	B	19800128		
DK 141168	C	19800714		
DK 7501359	A	19751003	DK 1975-1359	19750326
DK 141995	B	19800804		
DK 141995	C	19801215		
FI 7500920	A	19751003	FI 1975-920	19750326
FI 63567	B	19830331		
FI 63567	C	19830711		
FI 7500921	A	19751003	FI 1975-921	19750326
NO 7501084	A	19751003	NO 1975-1084	19750326
NO 141340	B	19791112		
NO 141340	C	19800220		
NO 7501086	A	19751003	NO 1975-1086	19750326
NO 142714	B	19800623		
NO 142714	C	19801001		
SE 7503517	A	19751003	SE 1975-3517	19750326
SE 419218	B	19810720		
SE 419218	C	19811029		
SE 7503518	A	19751003	SE 1975-3518	19750326
SE 418086	B	19810504		
SE 418086	C	19810813		
FR 2265747	A1	19751024	FR 1975-9484	19750326
FR 2265748	A1	19751024	FR 1975-9485	19750326
NL 7503754	A	19751006	NL 1975-3754	19750327
NL 160821	B	19790716		
NL 7503755	A	19751006	NL 1975-3755	19750327
AU 7579640	A	19751009	AU 1975-79640	19750327
AU 7579641	A	19760930	AU 1975-79641	19750327
CA 1050558	A1	19790313	CA 1975-223222	19750327
CA 1050546	A1	19790313	CA 1975-223227	19750327
DE 2560591	C2	19890608	DE 1975-2560591	19750327
BE 827419	A1	19751001	BE 1975-154971	19750401
BE 827420	A1	19751001	BE 1975-154972	19750401
ZA 7501996	A	19760225	ZA 1975-1996	19750401
ZA 7501997	A	19760225	ZA 1975-1997	19750401
DD 118510	A5	19760312	DD 1975-185144	19750401

L12 ANSWER 32 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

DD 118785	A5	19760320	DD 1975-185147	19750401
GB 1448810	A	19760908	GB 1975-13332	19750401
DD 124733	A5	19770308	DD 1975-192060	19750401
ES 436174	A1	19770416	ES 1975-436174	19750401
ES 436175	A1	19770416	ES 1975-436175	19750401
IL 46988	A	19771230	IL 1975-46988	19750401
AT 7502446	A	19780115	AT 1975-2446	19750401
AT 345614	B	19780925		
GB 1498199	A	19780118	GB 1975-13349	19750401
AT 343407	B	19780526	AT 1975-2448	19750401
IL 46989	A	19780615	IL 1975-46989	19750401
HU 172935	B	19790128	HU 1975-C11563	19750401
HU 173317	B	19790428	HU 1975-C11564	19750401
RO 73181	A1	19821011	RO 1975-81867	19750401
JP 50135225	A	19751027	JP 1975-40226	19750402
JP 53045364	B	19781206		
JP 50135226	A	19751027	JP 1975-40227	19750402
JP 60042202	B	19850920		
PL 97786	B1	19780330	PL 1975-179266	19750402
PL 98627	B1	19780531	PL 1975-179265	19750402
CS 183788	B2	19780731	CS 1975-2239	19750402
CS 183789	B2	19780731	CS 1975-2240	19750402
SU 682096	A3	19790825	SU 1975-2120455	19750402
SU 743561	A3	19800625	SU 1975-2121601	19750402
RO 79677	A1	19820817	RO 1975-81876	19750402
RO 84021	A1	19840512	RO 1975-106426	19750402
SU 628812	A3	19781015	SU 1975-2186207	19751105
SU 626690	A3	19780930	SU 1976-2342705	19760405
US 4046911	A	19770906	US 1976-703037	19760706
US 4094990	A	19780613	US 1976-709066	19760727
CH 598265	A5	19780428	CH 1977-4805	19770419
AT 7707656	A	19800115	AT 1977-7656	19771027
AT 358025	B	19800811		
AT 7707893	A	19790815	AT 1977-7893	19771104
AT 355561	B	19800310		
JP 53135964	A	19781128	JP 1978-2327	19780112
JP 57040829	B	19820830		
JP 53135965	A	19781128	JP 1978-2328	19780112
JP 5804533	B	19831008		

PRIORITY APPLN. INFO.:

AB RnC6H5-n(COR1)CHR2COR3 (I; R = Me, MeO, Cl, Et, BuO, etc; n = 1-4; R1 = furyl, thienyl, pyrimidinyl etc.; R2 = H, Me, R3 = MeO, EtO, Me2N, etc.), useful as fungicides and plant growth regulators, were prepared. Thus, 2,3,6-Me2EtC6H2NH2 reacted with BrCHMeCO2Me to give 2,3,6-Me2EtC6H2NHCHMeCO2Me, which reacted with 2-furancarboxyl chloride to give

L12 ANSWER 32 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

2,3,6-Me2EtC6H2N(COR1)CHMeCO2Me (R1 = 2-furyl). About 115 I were prepd.

and tested on various fungi and plants.

IT 58185-00-5P 58185-01-6P 58185-02-7P

58185-04-9P 58185-15-2P

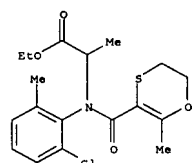
RI: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 58185-00-5 HCAPLUS

CN Alanine,

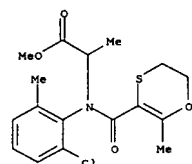
N-(2-chloro-6-methylphenyl)-N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)



RN 58185-01-6 HCAPLUS

CN Alanine,

N-(2-chloro-6-methylphenyl)-N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-, methyl ester (9CI) (CA INDEX NAME)



RN 58185-02-7 HCAPLUS

CN Glycine,

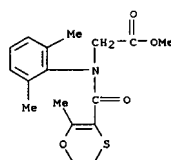
N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-N-(2,6-dimethylphenyl)-, methyl ester (9CI) (CA INDEX NAME)

RN 58185-04-9 HCAPLUS

CN Alanine,

N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-N-(2-ethyl-6-methylphenyl)-, methyl ester (9CI) (CA INDEX NAME)

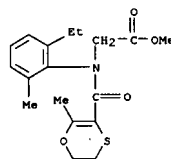
L12 ANSWER 32 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 58185-04-9 HCAPLUS

CN Glycine,

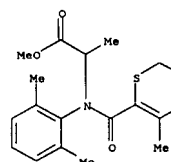
N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-N-(2-ethyl-6-methylphenyl)-, methyl ester (9CI) (CA INDEX NAME)



RN 58185-15-2 HCAPLUS

CN Alanine,

N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-N-(2,6-dimethylphenyl)-, methyl ester (9CI) (CA INDEX NAME)



10544897

L12 ANSWER 33 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1975:573722 HCAPLUS

DOCUMENT NUMBER: 83:173722

TITLE: Structure-activity relations of carboxamide fungicides

and the succinic dehydrogenase complex of

Cryptococcus

laurentii and Ustilago maydis

White, G. A.; Thorn, G. D.

CORPORATE SOURCE: Res. Inst., Agric. Dep. Canada, London, ON, Can.

SOURCE: Pesticide Biochemistry and Physiology (1975), 5(4),

380-95

CODEN: PCBPBS; ISSN: 0048-3575

DOCUMENT TYPE: Journal

LANGUAGE: English

GI For diagram(s), see printed CA Issue.

AB The systemic fungicide, carboxin (I) [5234-68-4] and a variety of carboxamide compds. exhibit a marked specificity for Basidiomycete fungi. This unique specificity resides in the mitochondrial succinic dehydrogenase [9002-02-2] complex (SDC) of sensitive Basidiomycetes such as U. maydis, the corn smut fungus. The present study examines in detail the structure-activity relationships of 93 carboxamide compds. and the

SDC of two carboxin-sensitive organisms, U. maydis and a Basidiomycetous yeast, C. laurentii. It has been possible to elucidate substantially the requirement in mol. structure needed for inhibition of the mitochondrial SDC. With few exceptions, a good correlation exists between the inhibitory activity of carboxamides towards the SDC of U. maydis and C. laurentii and the inhibition of growth of carboxamide-sensitive fungi, both in vitro and in vivo on the diseased plant. The structure-activity results were used as a basis for the synthesis of new, fungicidally-active

carboxamides. The compds. most active against the mycelial growth of Rhizoctonia solani were also tested on spore germination or mycelial growth of non-Basidiomycete fungi. Three carboxanilides (3-methyl-thiophene-2-carboxanilide [56776-44-4], 3'-methyl-2-methylbenzanilide [56776-45-5], and 3'-methyl-2-ethylbenzanilide [56776-46-6]) had a fungitoxic spectrum which extended beyond Basidiomycetes. The spectrum of fungicidal activity of carboxanilides appears to be altered not only by substitution in the aniline ring, but

by the nature of the ring attached to the carbonyl. No correlation was found between the inhibitory activity of oxathiins and benzanilides and their calculated partition coeffs.

IT 6577-30-6 6577-34-0 6577-38-4

13582-62-2 13582-78-0 14316-45-1

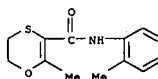
32416-55-0 35330-44-0 56776-47-7

RL: BIOL (Biological study)  
(succinate dehydrogenase of Basidiomycete fungi inhibition by, structure and fungicidal activity in relation to)

RN 6577-30-6 HCAPLUS

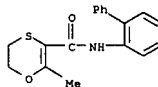
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-  
(9CI) (CA INDEX NAME)

L12 ANSWER 33 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



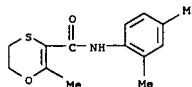
RN 6577-34-0 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-  
(9CI) (CA INDEX NAME)



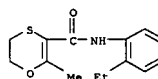
RN 6577-38-4 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-  
(9CI) (CA INDEX NAME)



RN 13582-62-2 HCAPLUS

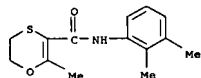
CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl- (9CI)  
(CA INDEX NAME)



RN 13582-78-0 HCAPLUS

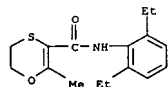
CN 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-  
(9CI) (CA INDEX NAME)

L12 ANSWER 33 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



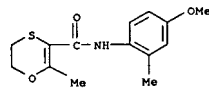
RN 14316-45-1 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2,6-diethylphenyl)-5,6-dihydro-2-methyl-  
(9CI) (CA INDEX NAME)



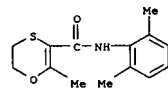
RN 32416-55-0 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(4-methoxy-2-methylphenyl)-2-  
methyl- (9CI) (CA INDEX NAME)



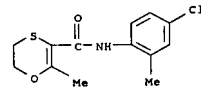
RN 35330-44-0 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2,6-dimethylphenyl)-5,6-dihydro-2-methyl-  
(9CI) (CA INDEX NAME)



RN 56776-47-7 HCAPLUS

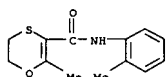
CN 1,4-Oxathiin-3-carboxamide, N-(4-chloro-2-methylphenyl)-5,6-dihydro-2-  
methyl- (9CI) (CA INDEX NAME)



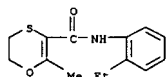
L12 ANSWER 33 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

10544897

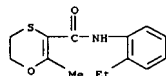
L12 ANSWER 34 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1974:459175 HCAPLUS  
 DOCUMENT NUMBER: 81:59175  
 TITLE: 1,4-oxathiin derivatives protect plants against ozone  
 AUTHOR(S): Rich, Saul; Ames, Ronald; Zukel, J. W.  
 CORPORATE SOURCE: Connecticut Agric. Exp. Stn., New Haven, CT, USA  
 SOURCE: Plant Disease Reporter (1974), 58(2), 162-4  
 CODEN: PLDRA4; ISSN: 0032-0811  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Beans, cotton, tobacco, tomatoes and soybeans were protected from injury by 25 ppm ozone [10028-15-6], carboxin (I) [5234-68-4], and other 1,4-oxathiin derivs. The ability of the compds. to protect against ozone injury is not related to its fungicidal activity. The effect of oxidation of the S atom or substitution on the anilide group on the effectiveness of the protective analogs was discussed.  
 IT 6577-30-6 13582-62-2  
 RL: BIOL (Biological study)  
 (ozone injury prevention by, in crop plants)  
 RN 6577-30-6 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-(9CI)  
 (CA INDEX NAME)



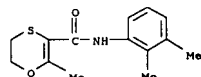
RN 13582-62-2 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-(9CI)  
 (CA INDEX NAME)



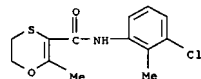
L12 ANSWER 35 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



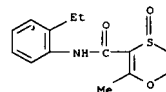
RN 13582-78-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)



RN 13582-79-1 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)



RN 17757-76-5 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-4-oxide (9CI) (CA INDEX NAME)

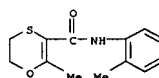


RN 17757-79-8 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-4-oxide (9CI) (CA INDEX NAME)

L12 ANSWER 35 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1974:434549 HCAPLUS  
 DOCUMENT NUMBER: 81:34549  
 TITLE: 5,6-Dihydro-2-methyl-1,4-oxathiin-3-carboxamide as plant protectant against air pollution  
 INVENTOR(S): Hager, Frederick M.  
 PATENT ASSIGNEE(S): Uniroyal Ltd.  
 SOURCE: Ger. Offen., 28 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

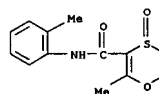
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2238053	A1	19731206	DE 1972-2238053	19720802
AT 319661	B	19750110	AT 1972-6239	19720719
FR 2193548	A1	19740222	FR 1972-26726	19720725
GB 1395286	A	19750702	GB 1972-35159	19720727
IT 964932	B	19740131	IT 1972-69630	19720811
CA 980593	A1	19751230	CA 1972-151255	19720908
CA 980594	A1	19751230	CA 1972-151256	19720908
JP 49024724	A	19740305	JP 1972-94464	19720920
PRIORITY APPLN. INFO.:			US 1972-255558	A 19720522

AB Thirty-five oxathiin derivs. (I, R = H, Me, or Et, R1 = e.g. Ph, cyclohexyl, 4-MeC6H4, 2-EtC6H4, or 2,4-(MeO)2C6H3), their S-oxides, and S,S-dioxides protected plants, e.g. tobacco, bean, cotton, soybean, or tomato plants, against damaging by air pollutants, e.g. ozone. Thus, administration of 12 ppm 5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxanilide [5234-68-4] to the soil protected Pinto beans 100% against ozone damage.  
 IT 6577-30-6 13582-62-2 13582-78-0  
 13582-79-1 17757-76-5 17757-79-8  
 17757-91-4 17757-94-7 32416-55-0  
 RL: BIOL (Biological study)  
 (plant protective agent, against ozone damage)  
 RN 6577-30-6 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-(9CI)  
 (CA INDEX NAME)

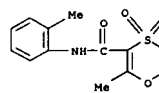


RN 13582-62-2 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-(9CI)  
 (CA INDEX NAME)

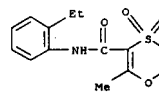
L12 ANSWER 35 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



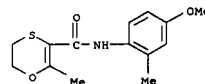
RN 17757-91-4 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-4,4-dioxide (9CI) (CA INDEX NAME)



RN 17757-94-7 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-4,4-dioxide (9CI) (CA INDEX NAME)



RN 32416-55-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(4-methoxy-2-methylphenyl)-2-methyl-(9CI) (CA INDEX NAME)



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L12 ANSWER 36 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1973:155412 HCAPLUS

DOCUMENT NUMBER: 78:155412

TITLE:

1-Oxa-2-methyl-3-(aminocarbonyl)-4-thia-2-cyclohexenes

INVENTOR(S): Kulka, Marshall; Thiara, Dalel Singh; Harrison,

William Ashley

PATENT ASSIGNEE(S): Uniroyal, Inc.

SOURCE: Ger., 10 pp. Division of Ger. 1,543,942 (See Neth.

66,05,525, CA 66:95055w).

CODEN: GWXXAW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1793632	C2	19730719	DE 1967-1793632	19660425
US 3393202	A	19680716	US 1965-451048	19650426
BR 6677408	D0	19730809	BR 1966-177408	19660228
BE 679985	A	19661003	BE 1966-679985	19660425
IL 25635	A	19700420	IL 1966-25635	19660426
NL 6910431	A	19691027	NL 1969-10431	19690708
			US 1965-451048	A 19650426

PRIORITY APPLN. INFO.:

AB The title compds. acted as systemic fungicides in plants and animals. Some individual compds. also showed bactericidal and antiviral activity. For example, 1-oxa-2-methyl-3-(o-phenylanilidocarbonyl)-4-thiacyclohex-2-ene (I) [6577-34-0] was highly effective in vitro at 1000 ppm against the human pathogens *Trichophyton mentagrophytes* var. *interdigitale* and *T. rubrum*. Spraying with 1-oxa-2-methyl-3-(anilidocarbonyl)-4-thiacyclohex-2-ene (II) [5234-68-4] was 100% effective against *Uromyces phaseoli* on beans at 100 ppm and 90% effective against *Alternaria solani* on tomatoes at 500 ppm. Incorporation of 20 ppm 1-oxa-2-methyl-3-(N,N-dibutylamidocarbonyl)-4-thiacyclohex-2-ene [13582-30-4] into the soil before sowing gave 94% protection of cotton from *Rhizoctonia solani*.

IT 6577-30-6 6577-34-0 13582-62-2

13582-78-0 13582-84-8 14316-45-1

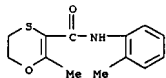
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(fungicides)

RN 6577-30-6 HCAPLUS

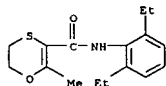
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-(9CI)

(CA INDEX NAME)



L12 ANSWER 36 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

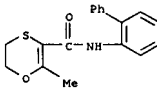
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L12 ANSWER 36 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

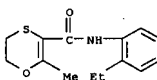
RN 6577-34-0 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)



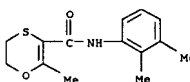
RN 13582-62-2 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)



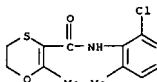
RN 13582-78-0 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)



RN 13582-84-8 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2-chloro-6-methylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)



RN 14316-45-1 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2,6-diethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

L12 ANSWER 37 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1973:39134 HCAPLUS

DOCUMENT NUMBER: 78:39134

TITLE: Effectiveness of systemic fungicide seed dressings as protectants of barley seedlings against *Cochliobolus sativus*

AUTHOR(S): Richardson, Lloyd T.

CORPORATE SOURCE: Res. Inst., Canada Dep. Agric., London, ON, Can.

SOURCE: Canadian Journal of Plant Science (1972), 52(6), 949-53

CODEN: CPLSAY; ISSN: 0008-4220

DOCUMENT TYPE: Journal

LANGUAGE: English

AB *C. sativus* was completely controlled on barley seeds by treatment with 5 g

Vitavax [5234-68-4], 2.5 g F 427 (2,3-dihydro-5-o-phenylanilido-6-methyl-1,4-oxathiin) [6577-34-0] or 2.5 g G 696 (2,4-dimethyl-5-carboxanilidothiazole) [21452-18-6]/kg seed. In the greenhouse, the emergence of barley was increased by seed treatment with 2.5 g G 696/kg. Of all the seed-dressing fungicides tested, only G 696 controlled infection from leaf inoculation.

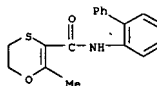
IT 6577-34-0

RL: BIOL (Biological study)

(Cochliobolus sativus control by, in barley, by seed treatment)

RN 6577-34-0 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(1,1'-biphenyl)-2-yl-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)



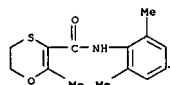
10544897

L12 ANSWER 38 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1972:526649 HCAPLUS  
 DOCUMENT NUMBER: 77:126649  
 TITLE: 5,6-Dihydro-2-methyl-1,4-oxathiin-3-carboxamide  
 4,4-dioxides  
 INVENTOR(S): Pande, Gyan Shanker; Balatoni, Julius Attila  
 PATENT ASSIGNEE(S): Uniroyal Ltd.  
 SOURCE: Ger. Offen., 22 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

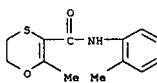
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2158312	A	19720713	DE 1971-2158312	19711124
US 3888878	A	19750610	US 1970-101429	19701224
NL 7116006	A	19720627	NL 1971-16006	19711119
IT 942931	B	19730402	IT 1971-70838	19711123
RO 62258	A1	19771015	RO 1971-68848	19711124
AT 312626	B	19740110	AT 1971-10260	19711129
FR 2119390	A5	19720804	FR 1971-44250	19711209
GB 1379745	A	19750108	GB 1971-57268	19711209
CH 559745	A5	19750314	CH 1971-17968	19711209
CS 187353	B2	19790131	CS 1971-8614	19711210
SU 428606	A3	19740515	SU 1971-1726644	19711217
SE 384509	B	19760510	SE 1971-16440	19711221
DK 127508	B	19731119	DK 1971-6315	19711223
PL 83078	A5	19751231	PL 1971-152444	19711223
			US 1970-101429	A 19701224

PRIORITY APPLN. INFO.:  
 GI For diagram(s), see printed CA Issue.  
 AB Eleven title compds. (I, R = Ph, hexyl, 2,6-Et2C6H3, o-MeC6H4, 2,6-ClMeC6H3, 3,2-ClMeC6H3, cyclohexyl, 2,6-xylyl, m-O2NC6H4, α-naphthyl, Me2CH), useful as fungicides, were prepared by oxidation of the oxathiin with a 2-phase mixture of HCO2H + H2O2 in either MeCOCHMe2 or MePh at 75-92°. Thus, 5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxanilide was suspended in MeCOCHMe2, HCO2H, and H2O2, and the mixture refluxed 1.5 hr to give 97% I (R = Ph).  
 IT 6577-30-6P 13582-79-1P 13582-84-8P  
 14316-45-1P 35330-44-0P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
 RN 6577-30-6 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-(9CI) (CA INDEX NAME)

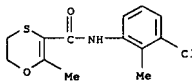
L12 ANSWER 38 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



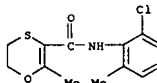
L12 ANSWER 38 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



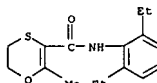
RN 13582-79-1 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)



RN 13582-84-8 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2-chloro-6-methylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)



RN 14316-45-1 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2,6-diethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

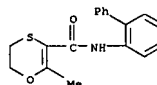


RN 35330-44-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2,6-dimethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

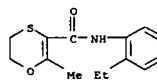
L12 ANSWER 39 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1972:444336 HCAPLUS  
 DOCUMENT NUMBER: 77:44336  
 TITLE: Control of virus diseases of plants with 5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxamides  
 INVENTOR(S): Davis, Robert A.; Grahame, Robert E.; Kulka, Marshall  
 PATENT ASSIGNEE(S): Uniroyal, Inc.; Uniroyal Ltd.  
 SOURCE: U.S., 4 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3657449	A	19720418	US 1970-17945	19700309
CA 942189	A1	19740219	CA 1970-97250	19701103
			US 1970-17945	A 19700309

PRIORITY APPLN. INFO.:  
 AB Plant diseases caused by virus, such as tobacco ringspot and southern bean mosaic viruses, are controlled by application of oxathiin-carboxamides. Under severe test conditions where the untreated cowpea plants were killed within 5-7 days, treatment with 5,6-dihydro-2-methyl-N-(m-tolyl)-1,4-oxathiin-3-carboxamide (I) [6577-31-7] (35 ppm) resulted in 100% survival 2-3 weeks after injection with tobacco ringspot virus when I was applied as soil drench prior to inoculation.  
 IT 6577-34-0 13582-62-2 17757-91-4  
 35330-44-0  
 RL: BIOL (Biological study) (as virucide for plants)  
 RN 6577-34-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)



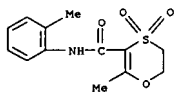
RN 13582-62-2 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)



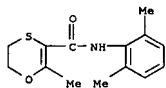
RN 17757-91-4 HCAPLUS

10544897

L12 ANSWER 39 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-, 4,4-dioxide (9CI) (CA INDEX NAME)



RN 35330-44-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2,6-dimethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



L12 ANSWER 40 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1972:786 HCAPLUS  
 DOCUMENT NUMBER: 76:786  
 TITLE: Potent effect of 1,4-oxathiin systemic fungicides on succinate oxidation by a particulate preparation from Ustilago maydis

AUTHOR(S): White, G. A.  
 CORPORATE SOURCE: Res. Inst., Canada Dep. Agric., London, ON, Can.  
 SOURCE: Biochemical and Biophysical Research Communications (1971), 44(5), 1212-19  
 CODEN: BBRC9; ISSN: 0006-291X  
 JOURNAL

DOCUMENT TYPE:

LANGUAGE:

AB Carboxine (5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxanilide) (I) [5234-68-4] noncompetitively inhibited succinate [110-15-6] oxidation in particulate preps. from U. maydis (corn smut) by acting as a steric inhibitor toward succinate dehydrogenase, or by inhibiting an electron carrier component immediate to the dehydrogenase. The most potent inhibitor was 3'-methyl carboxine (II) [6577-31-7] and the least potent, the hydrolysis product of I, 5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxylic acid [6577-69-1]. The thiazole fungicides, including 2-amino-4-methylthiazole-5-carboxanilide [21452-14-2], were also strong inhibitors of succinate oxidation

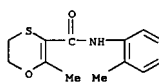
IT 6577-30-6 6577-34-0 35330-44-0

RL: BIOL (Biological study)  
 (succinate oxidation by Ustilago maydis in relation to)

RN 6577-30-6 HCAPLUS

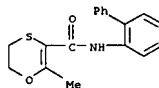
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)- (9CI)

(CA INDEX NAME)



RN 6577-34-0 HCAPLUS

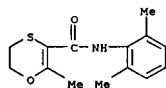
CN 1,4-Oxathiin-3-carboxamide, N-(1,1'-biphenyl)-2-yl-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 35330-44-0 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2,6-dimethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 40 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



L12 ANSWER 41 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1972:778 HCAPLUS  
 DOCUMENT NUMBER: 76:778  
 TITLE: Mode of action of oxathiin systemic fungicides. Structure-activity relations

AUTHOR(S): Mathre, Donald E.  
 CORPORATE SOURCE: Dep. Bot. Microbiol., Montana State Univ., Bozeman, MT, USA

SOURCE: Journal of Agricultural and Food Chemistry (1971), 19(5), 872-4  
 CODEN: JAFCAU; ISSN: 0021-8561  
 JOURNAL

DOCUMENT TYPE:

LANGUAGE:

AB Toxicities of the oxathiin systemic fungicide carboxine (5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxanilide) (I) [5234-68-4] and 8 structurally related compds. were compared with their effects on metabolic pathways in sensitive fungi, the toxic compds. also showing strong inhibition of acetate [64-19-7] metabolism and RNA synthesis. Oxidation of the I S atom or elimination of the benzene ring from I reduced or destroyed the toxicity.

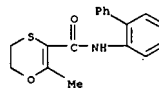
IT 6577-34-0

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(Fungicides, action mechanism of)

RN 6577-34-0 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(1,1'-biphenyl)-2-yl-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



L12 ANSWER 42 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1971:475245 HCAPLUS

DOCUMENT NUMBER: 75:75245

TITLE: Relations of molecular structure of 1,4-oxathiin fungicides to chemotherapeutic activity against rust and smut fungi in grasses

AUTHOR(S): Hardison, John R.

CORPORATE SOURCE: Crops Res. Div., Agric. Res. Serv., Corvallis, OR, USA

SOURCE: Phytopathology (1971), 61(6), 731-5

CODEN: PHYTAJ; ISSN: 0031-949X

DOCUMENT TYPE: Journal

LANGUAGE: English

GI For diagram(s), see printed CA Issue.

AB Carboxin (I), oxycarboxin (II), and 10 other carboxin analogs were evaluated for systemic fungicidal activity against stripe rust (*Puccinia striiformis*), stripe smut (*Ustilago striiformis*), and flag smut

(*Urocystis agropyri*) after soil application. Activity of I was poor against rust

and stripe smut and fair against flag smut. II was excellent against rust, good against stripe smut, and completely eradicated flag smut. 5,6-Dihydro-2-methyl-1,4-oxathiin-3-carboxanilide-4-oxide was superior to I against rust but inferior to II against all 3 diseases.

5,6-Dihydro-4'-methoxy-2-methyl-1,4-oxathiin-3-carboxanilide-4,4-dioxide had poor activity against stripe smut and decreased activity against flag smut but maintained good rust control as compared to II. Decreases or loss of activity against all 3 diseases was apparent in most nonoxidized analogs with substitutions to the phenyl ring, including 5,6-dihydro-2-methyl-N-(2-biphenyl)-1,4-oxathiin-3-carboxamide, 2',6'-diethyl-5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxamide, 3'-chloro-5,6-dihydro-2,2'-dimethyl-1,4-oxathiin-3-carboxanilide, and 5,6-dihydro-4'-methoxy-2,2'-dimethyl-1,4-oxathiin-3-carboxanilide. 5,6-Dihydro-2-methyl-N-(2-biphenyl)-1,4-oxathiin-3-carboxamide which a nonoxidized heterocycle impaired rust control but had a much better activity against stripe smut and flag smut than did I and less phytotoxicity than II. 5,6-Dihydro-2,2',3'-trimethyl-1,4-oxathiin-3-carboxanilide-4,4-dioxide, which combines the active substitutions of II and the 2',3'-dimethyl derivative, maintained strong activity against

all 3 diseases with somewhat less plant injury.

IT 6577-34-0 13582-78-0 13582-79-1

14316-45-1, 1,4-Oxathiin-3-carboxanilide, 2',6'-diethyl-5,6-

dihydro-2-methyl- 17757-93-6 32416-55-0

RL: BIOL (Biological study)

(*Puccinia striiformis* and *Ustilago striiformis* control by)

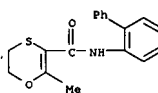
RN 6577-34-0 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-

(9CI) (CA INDEX NAME)

L12 ANSWER 42 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

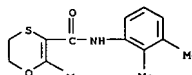
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RN 13582-78-0 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-

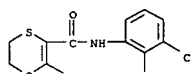
(9CI) (CA INDEX NAME)



RN 13582-79-1 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-

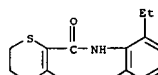
methyl- (9CI) (CA INDEX NAME)



RN 14316-45-1 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2,6-diethylphenyl)-5,6-dihydro-2-methyl-

(9CI) (CA INDEX NAME)



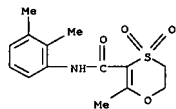
RN 17757-93-6 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-

4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 42 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

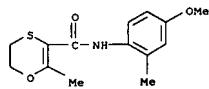
(Continued)



RN 32416-55-0 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(4-methoxy-2-methylphenyl)-2-

methyl- (9CI) (CA INDEX NAME)



L12 ANSWER 43 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1970:497834 HCAPLUS

DOCUMENT NUMBER: 73:97834

TITLE: Fungitoxicity and structure-activity relation of some oxathiin and thiazole derivatives

AUTHOR(S): Snel, Marten; Von Schmeling, Bogislav; Edgington, Lloyd V.

CORPORATE SOURCE: Dep. Bot., Univ. Guelph, Guelph, ON, Can.

SOURCE: Phytopathology (1970), 60(8), 1164-9

CODEN: PHYTAJ; ISSN: 0031-949X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB ED50 values of carboxin (5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxanilide), its sulfone analog, oxycarboxin (both systemic fungicides used for control of diseases caused by Basidiomycetes), and 13 related, substituted oxathiin and thiazole compds. were determined to a selected number of

Basidiomycetes, Deuteromycetes, and a zygomycete. Eradicant activity of these compds. was determined against bean rust, *Uromyces phaseoli* typica. Substitutions in the carboxin mol. studied do not increase the spectrum

of fungi to which the oxathiins are toxic. A number of yeastlike lower Basidiomycetes belonging to the Tremellales (jelly fungi) proved to be insensitive to oxathiins. The only deuteromycete in this study sensitive to oxathiins was *Monilia cinerea* f. *americana*. The 3'-methyl analog of carboxin is the only compound surpassing the fungitoxicity of carboxin. Electron withdrawing groups (Cl and NO<sub>2</sub>) substituted in the aniline ring markedly reduce fungitoxicity. Replacement of the 2-methyloxathiin moiety

by an o-tolyl, 2,4-dimethylthiazolyl, 2-amino-4-methylthiazolyl, or even to some extent by a butyryl group, results in compds. retaining the original biol. activity. Benzanilide is significantly less toxic to *Rhizoctonia solani* than o-toluanilide, indicating that a methyl group in position 2 is necessary for good toxicity. Results of evaluation

of the eradicator activity of oxathiins against bean rust correlate very well with those of in vitro fungitoxicity tests, suggesting that oxathiin systemic fungicides act by virtue of their fungitoxicity, rather than by altering host metabolism.

IT 6577-30-6

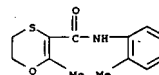
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(Fungicides)

RN 6577-30-6 HCAPLUS

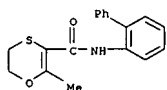
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-

(9CI) (CA INDEX NAME)

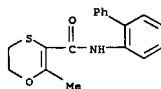


10544897

L12 ANSWER 44 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1969:511811 HCAPLUS  
 DOCUMENT NUMBER: 71:111811  
 TITLE: Effect of fungicides on *Cochliobolus sativus* and other  
 AUTHOR(S): fungi on barley seed in soil  
 CORPORATE SOURCE: Mills, J. T.; Wallace, H. A. H.  
 SOURCE: Canada Dep. Agr., Winnipeg, MB, Can.  
 543-8 Canadian Journal of Plant Science (1969), 49(5),  
 CODEN: CPLSAY; ISSN: 0008-4220  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Nineteen seed-treatment fungicides were evaluated on barley seed infected with *C. sativus*, *Alternaria alternata*, and *Streptomyces* species. Seeds were treated with 0.97-2.80 g./kg. of each fungicide, placed in the soil for 7 days at 20°, and examined. Ceresan M (0.97 g./kg.), Panogen PX (2.6 g./kg.), and Dithane M-45 (2.6 g./kg.) were best for control of *C. sativus*. *A. alternata* was controlled by all but SWF 850 (hexachlorobenzene-captan-Maneb formulation, I), and G-696 (2,4-dimethyl-5-carboxanilidothiazole, II). *Streptomyces* growth was enhanced by I, II, 4497 [bis(1,2,2-trichloroethyl) sulfoxide]; SWF 800, SWF 860 (similar to I), and F-735 [2,3-dihydro-5-carboxanilido-6-methyl-1,4-oxathin]. A filter paper technique was recommended for initial screening of fungicides.  
 IT 6577-34-0  
 RL: BIOL (Biological study)  
 (fungus control by, on barley)  
 RN 6577-34-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



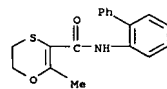
L12 ANSWER 45 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1969:19209 HCAPLUS  
 DOCUMENT NUMBER: 70:19209  
 TITLE: Determination of selective action of fungicides on the  
 AUTHOR(S): microflora of barley seed  
 CORPORATE SOURCE: Mills, J. T.; Wallace, H. A. H.  
 SOURCE: Res. Sta., Canada Dep. Agr., Winnipeg, MB, Can.  
 Canadian Journal of Plant Science (1968), 48(6),  
 587-94  
 CODEN: CPLSAY; ISSN: 0008-4220  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB The effects of 47 seed-treatment fungicides on the microflora of barley seed naturally infested 95-100% with *Cochliobolus sativus* and other fungi were investigated after 7 days on moist filter paper. Each fungicide had a characteristic and reproducible effect on these organisms. Fungicides containing Hg or maneb were highly effective against all organisms, whereas specific effects were associated with other fungicides. Least survival (best control) of *C. sativus* was obtained with Ceresan M, Pandrinex APX and Panogen PX among the mercurials, and Green Cross SWF 850 and SWF 860, Chemagro 4497, and Chipman 53-64 among the nonmercurials. The incidence of *Acremonium* detected was high on seed treated with Dexon, Cephalosporium with Vitavax, *Streptomyces* with Green Cross SWF 850, and *Cladosporium* with Green Cross 3922. The data obtained by the filter paper method should be complementary to those obtained from treated seed after 7 days in soil.  
 IT 6577-34-0  
 RL: BIOL (Biological study)  
 (as fungicides for barley seed)  
 RN 6577-34-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



L12 ANSWER 46 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1968:505333 HCAPLUS  
 DOCUMENT NUMBER: 69:105333  
 TITLE: Antifungal 2,3-dihydro-1,4-oxathiin-5-carboxamides  
 PATENT ASSIGNEE(S): Uniroyal, Inc.  
 SOURCE: Brit., 8 pp.  
 CODEN: BRXXAA  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

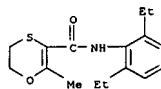
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1124310		19680821	GB 1967-24834	19670530
CA 951243			CA	
DE 1617921			DE	
DE 1617924			DE	
FR 6477			FR	
US 3538225		19701103	US	19660627
			US	19660627

PRIORITY APPLN. INFO.:  
 OTHER SOURCE(S): MARPAT 69:105333  
 GI For diagram(s), see printed CA Issue.  
 AB The title compds. of formula I have useful antifungal activity against dermatophytes, especially against *Trichophyton mentagrophytes* var. interdigitale.  
 The most active compds. against this fungus were I (R = 2-biphenyl)  
 (II),  
 C6H13 (III), m-MeC6H4, 2,6-Et2C6H3, C5H11, and 2,4,6-Me3C6H2). Both II and III, each at 1000 µg./ml., were more effective (tests of zones of inhibition in agar plate culture) than griseofulvin and undecylenic acid. Using a seed agar technique, III in an ointment containing 1% (weight/weight) active agent was the most effective compound against *T. mentagrophytes*, *T. rubrum*, and *Microsporum audouinii*.  
 IT 6577-34-0 14316-45-1 21554-33-6  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)  
 (as fungicide)  
 RN 6577-34-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

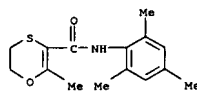


RN 14316-45-1 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2,6-diethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 46 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 21554-33-6 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2,4,6-trimethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



L12 ANSWER 47 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1968:95830 HCAPLUS

DOCUMENT NUMBER: 68:95830

TITLE: Carboxamido oxathiin oxides as systemic fungicides and

INVENTOR(S): bactericides  
Von Schmeling, Bogislav; Von Schmeling, Bogislav;  
Thiara, Dalel S.; Harrison, William Ashley

PATENT ASSIGNEE(S): Uniroyal, Inc.

SOURCE: Fr., 15 pp.

CODEN: FRXXAK

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1477062		19670414	FR 1966-58541	19660421
DE 1567211			DE	
GB 1099243			GB	
US 3402241		19680917	US 1965-506606	19651105
PRIORITY APPLN. INFO.:			US	19651105

GI For diagram(s), see printed CA Issue.

AB Title compds. (I) showed a specific action against a number of soil pathogenic organisms such as *Uromyces phaseoli* typica and *Rhizoctonia solani* and bactericidal properties in foliage treatment against several organisms such as *Staphylococcus aureus*. Rates of application were 0.15 g.-7.5 g./kg. of seed to be treated, and 113.5 g.-11.3 kg./ha. when used as soil fungicides; for these applications, powder formulations were more suitable. For foliage treatments, 3-11 kg./ha., generally in H<sub>2</sub>O suspension, were suggested. To 0.3 mole  $\alpha$ -chloroacetanilide and 300 cc. C<sub>6</sub>H<sub>6</sub> was added dropwise in 2 hrs. at approx. 30° 20.4 g. KOH, 0.3 mole HS(CH<sub>2</sub>)<sub>2</sub>OH, and 40 cc. MeOH, and the mixture stirred 1 hr. and worked up to give 65% 2,3-dihydro-5-carboxanilido-6-methyl-1,4-oxathiin (II), m. 93-5° (EtOH). To 25 g. II in 150 cc. AcOH and 5 cc. H<sub>2</sub>O was added dropwise, with stirring, in 15 min. 12 cc. 30% H<sub>2</sub>O<sub>2</sub> and 13 cc. AcOH and the temperature kept at 10-13° 5 hrs. and at 10° 16 hrs. without stirring. Distillation and cooling gave 80% 2,3-dihydro-5-carboxanilido-

6-methyl-1,4-oxathiin 4-oxide, m. 120-1° (iso-PrOH). The sulfone was prepared by adding dropwise to 0.5 mole II in 400 cc. AcOH, with stirring, 130 cc. 30% H<sub>2</sub>O<sub>2</sub> at 45-50°. When the exothermic reaction was over, the mixture was heated 1 hr. at 92° and worked up to give 121 g. 2,3-dihydro-5-carboxanilido-6-methyl-1,4-oxathiin 4,4-dioxide (III), m. 128-30° (EtOH). The following IV were prepared (R, m.p., and % yield given): carboxanilido, 121-2°, 80; 2,3-dimethylcarboxanilido, 136-7°, 85; m-methylcarboxanilido, 196-8° (decomposition), 85; N-cyclohexylcarboxanilido, 140-1°, 80; o-ethylcarboxanilido, 106-8°, 80; p-methylcarboxanilido, 149-50°, 83; 2,4-dimethylcarboxanilido, 121-2°, 72; o-methylcarboxanilido, 121-3°, 88; 2-chlorocarboxanilido, 143-4°, 82; N-methylcarboxanilido, 168-70° (decomposition), 83; N-(tert-butyl)carboxanilido, 153-4°, 79; N-(n-dodecyl)carboxanilido, 79-81°, 75; 2,3-dichlorocarboxanilido, 177-8° (decomposition).

L12 ANSWER 47 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

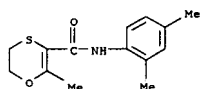
99; 3-methoxycarboxanilido, 155-7°, 82; carboxymorpholide, 104-6°, 65; p-carboxycarboxanilido, 230-5° (decompn.), 84; 3,4-dimethoxycarboxanilido, 188-90° (decompn.), 75; N-isopropylcarboxanilido 121-2°, 74; N-ethylcarboxanilido, 112-13°, 50; carboxanilido, 128-30°, 90; m-methylcarboxanilido, 133-5°, 90; N-cyclohexylcarboxanilido, 182-4°, 80; o-methylcarboxanilido, 123-5°, 85; p-methylcarboxanilido, 163-5°, 87; 2,3-dimethylcarboxanilido, 151-3°, 44; 2-ethylcarboxanilido, 108°, 85; 3-methoxycarboxanilido, 150-2°, 86; 4-methoxycarboxanilido, 137-8°, 80; 3-bromocarboxanilido, 138-40°, 80; 3-chloro-2-methylcarboxanilido, 152-4°, 78; 2-methoxycarboxanilido, 186°, 70; 3-chlorocarboxanilido, 180-3° (decompn.), 68; 2,4,5-trichlorocarboxanilido, 210-11° (decompn.), 69; N-butylcarboxanilido, 156-7°, 75; N-n-octylcarboxanilido, 140°, 80; 2,4-dimethylcarboxanilido, 144-6°, 75; 2,5-dimethylcarboxanilido, 130-3°, 83; 3,4-dichlorocarboxanilido, 160-2°, 48; 2-methyl-4-methoxycarboxanilido, 131-6°, 60; 2-chloro-6-methylcarboxanilido, 163-5°, 50; N-methylcarboxanilido, 126°, 92; N-n-pentylcarboxanilido, 154-6°, 90; N-n-hexylcarboxanilido, 150°, 85; N-isopropylcarboxanilido, 149-51°, 74; N-ethylcarboxanilido, 125-6°, 83; N-octadecylcarboxanilido, 122-3°, 80; 2-chlorocarboxanilido, 173-4°, 91; 4-bromocarboxanilido, 215°, 95; 2,3-dichlorocarboxanilido, 159-61° (decompn.), 65; 2,5-dichlorocarboxanilido, 178-9° (decompn.), 68; 3,5-dichlorocarboxanilido, 213-14° (decompn.), 59; N(n-decyl)carboxanilido, 118°, 69; N-(n-dodecyl)carboxanilido, 131-2°, 75; 4-chlorocarboxanilido, 217-19°, 95; 2-carboxamidocarboxanilido, 207-8° (decompn.), 34; carboxymorpholide, 226-7° (decompn.), 96; N-cyanoethylcarboxanilido, 122-3°, 75; N-benzylcarboxanilido, 152-3°, 89; 3,4-dimethoxycarboxanilido, 183-5°, 82; N-hexadecylcarboxanilido, 125-6°, 83; 2-methyl-4-chlorocarboxanilido, 169-70°, 93; 3-chloro-4-methylcarboxanilido, 159-60°, 84; 2-methoxy-5-chlorocarboxanilido, 153-5°, 89; N,N-diethylcarboxanilido, 90; N,N-dibutylcarboxanilido, 75; and 2,5-dimethoxy-4-chlorocarboxanilido, 202-4°, -. The greatest fungicidal activity (beans) (*U. phaseoli*) was shown by III and 2,3-dihydro-5-(m-methylcarboxanilido)-6-methyl-1,4-oxathiin 4,4-dioxide.

IT 6577-38-4P 17757-73-2P 17757-76-5P  
17757-78-7P 17757-79-8P 17757-91-4P  
17757-93-6P 17757-94-7P 17757-98-1P  
17758-04-2P 17758-05-3P 17762-58-2P  
17762-75-3P 17762-76-4P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 6577-38-4 HCAPLUS

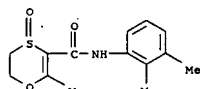
CN 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 47 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



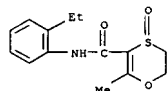
RN 17757-73-2 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-4-oxide (9CI) (CA INDEX NAME)



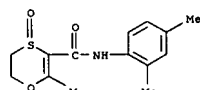
RN 17757-76-5 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-4-oxide (9CI) (CA INDEX NAME)



RN 17757-78-7 HCAPLUS

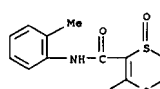
CN 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-4-oxide (9CI) (CA INDEX NAME)



RN 17757-79-8 HCAPLUS

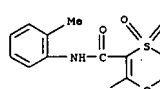
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-4-oxide (9CI) (CA INDEX NAME)

L12 ANSWER 47 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



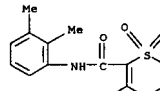
RN 17757-91-4 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-4,4-dioxide (9CI) (CA INDEX NAME)



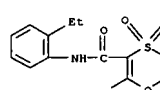
RN 17757-93-6 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-4,4-dioxide (9CI) (CA INDEX NAME)



RN 17757-94-7 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-4,4-dioxide (9CI) (CA INDEX NAME)

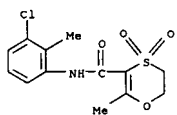


RN 17757-98-1 HCAPLUS

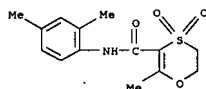
CN 1,4-Oxathiin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-4,4-dioxide (9CI) (CA INDEX NAME)

10544897

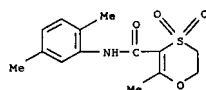
L12 ANSWER 47 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



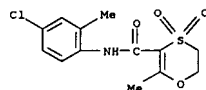
RN 17758-04-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



RN 17758-05-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,5-dimethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



RN 17762-58-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



RN 17762-75-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(4-methoxy-2-methylphenyl)-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 48 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1968:78294 HCAPLUS

DOCUMENT NUMBER: 68:78294

TITLE: 2,3-Dihydro-5-carbamoyl-6-methyl-1,4-oxathiin sulfoxides and sulfones

PATENT ASSIGNEE(S): Uniroyal, Inc.

SOURCE: Meth. Appl., 28 pp.

CODEN: NAXXAN

DOCUMENT TYPE: Patent

LANGUAGE: Dutch

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 6605527		19670508	NL 1966-5527	19660425
DE 1543941			DE	
DE 1793638			DE	
FR 1477061			FR	
GB 1099245			GB	
US 3399214		19680827	US 1965-506596	19651105
			US	19651105

GI For diagram(s), see printed CA Issue.

AB The title compds. (I) are prepared by oxidation of oxathiins. Thus, 72 cc.

SO<sub>2</sub>Cl<sub>2</sub> was dropwise added to a solution of 150 g. acetoacetanilide (III) in 1

1. C<sub>6</sub>H<sub>6</sub> to give 131 g. α-chloroacetoacetanilide (III), m. 136-8°. To 63.5 g. III in 300 cc. C<sub>6</sub>H<sub>6</sub>, 20.4 g. KOH solution, then 22.2 cc. 2-mercaptoethanol (IV) in 400 cc. MeOH was added in 2 hrs. at 30° to give 45.8 g. 2,3-dihydro-5-(phenylcarbamoyl)-6-methyl-1,4-oxathiin (V), m. 93-5°. V also may be prepared by treating 33 g. α-chloroacetoacetate in 200 cc. C<sub>6</sub>H<sub>6</sub> with a solution of 13.6 g. KOH and 16 g. IV in 30 cc. MeOH at 30°, saponification of the obtained Et 2,3-dihydro-6-methyl-1,4-oxathiin-5-carboxylate, b<sub>p</sub> 107-10°, with MeOH in EtOH, then treating the acid with SOCl<sub>2</sub> and condensing the chloride with PhNH<sub>2</sub> in CHCl<sub>3</sub>. A mixture of 480 g.

2,3-dihydro-5-carboxy-6-methyl-1,4-oxathiin and 600 cc. CHCl<sub>3</sub> is treated with 393 g. SOCl<sub>2</sub>, then with m-toluidine to give 2,3-dihydro-5-(m-methylphenylcarbamoyl)-6-methyl-1,4-oxathiin (VI), m. 82-4°. Similarly were prepared the 5-substituted V analogs: cyclohexylcarbamoyl, m. 130-1°; 3,5-dichlorophenylcarbamoyl, m. 147-9°; n-octylcarbamoyl, 74-5°; 2,4,5-trichlorophenylcarbamoyl, m. 165-7°. To a solution of 25 g. V in 150 cc. AcOH and 5 cc. H<sub>2</sub>O 12 cc. 30% H<sub>2</sub>O<sub>2</sub> and 13

cc. AcOH was slowly added at 10-13° to give the 4-oxide, m. 120-1° (iso-PrOH). Treatment of 117.5 g. V in 500 cc. AcOH at 40-50° with 130 cc. 30% H<sub>2</sub>O<sub>2</sub> gave the 4,4-dioxide, m. 128-30° (EtOH). Similarly are obtained the tabulated 4-oxides and 4,4-dioxides from the appropriate starting amines. The products are intermediates for syntheses.

IT 17757-73-2P 17757-76-5P 17757-78-7P

17757-79-8P 17757-91-4P 17757-93-6P

17757-94-7P 17757-98-1P 17758-04-2P

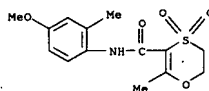
17758-05-3P 17762-58-2P 17762-75-3P

17762-76-4P 17842-03-4P 17842-10-3P

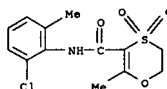
17843-68-4P 17843-81-1P 17946-62-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

L12 ANSWER 47 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 17762-76-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-chloro-6-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

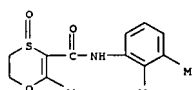


L12 ANSWER 48 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

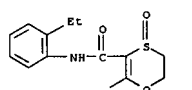
(prepn. of)

RN 17757-73-2 HCAPLUS

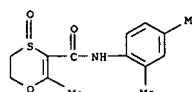
CN 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-, 4-oxide (9CI) (CA INDEX NAME)



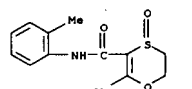
RN 17757-76-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-, 4-oxide (9CI) (CA INDEX NAME)



RN 17757-78-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-, 4-oxide (9CI) (CA INDEX NAME)



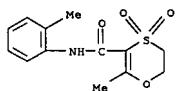
RN 17757-79-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-, 4-oxide (9CI) (CA INDEX NAME)



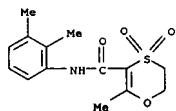
RN 17757-91-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-, 4,4-dioxide (9CI) (CA INDEX NAME)

10544897

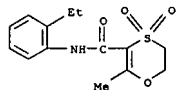
L12 ANSWER 48 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



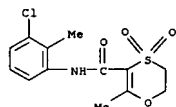
RN 17757-93-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



RN 17757-94-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

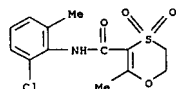


RN 17757-98-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

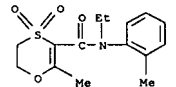


RN 17758-04-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

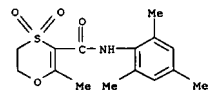
L12 ANSWER 48 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



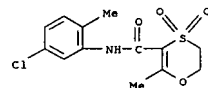
RN 17842-03-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-ethyl-5,6-dihydro-2-methyl-, 4,4-dioxide (8CI) (CA INDEX NAME)



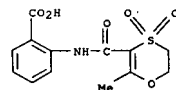
RN 17842-10-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxanilide, 5,6-dihydro-2,2',4',6'-tetramethyl-, 4,4-dioxide (8CI) (CA INDEX NAME)



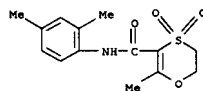
RN 17843-68-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(5-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (8CI) (CA INDEX NAME)



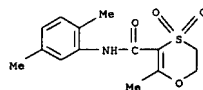
RN 17843-81-1 HCAPLUS  
CN Anthranilic acid, N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-, S,S-dioxide (8CI) (CA INDEX NAME)



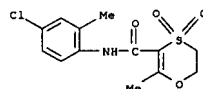
L12 ANSWER 48 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



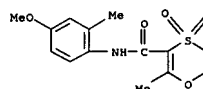
RN 17758-05-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,5-dimethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



RN 17762-58-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



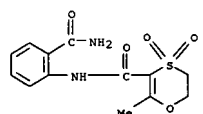
RN 17762-75-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4-methoxy-2-methylphenyl)-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



RN 17762-76-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-chloro-6-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 48 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 17946-62-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(aminocarbonyl)phenyl]-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



10544897

L12 ANSWER 49 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1969:21147 HCAPLUS

DOCUMENT NUMBER: 68:21147

TITLE: Fungitoxic spectrum of oxathiin compounds

AUTHOR(S): Edgington, Lloyd V.; Barron, G. L.

CORPORATE SOURCE: Univ. Guelph, Guelph, Can.

SOURCE: Phytopathology (1967), 57(11), 1256-7

CODEN: PHYTAJ; ISSN: 0031-949X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Fifty percent inhibitory concns. (LC50) of 2,3-dihydro-5-carboxanilido-6-methyl-1,4-oxathiin (D735) and 2,3-dihydro-5-(o-phenylcarboxanilido)-6-methyl-1,4-oxathiin (F427) toward 33 Deuteromycetes, Phycomycetes, and Basidiomycetes were determined. Both compds. were highly toxic to the Basidiomycetes and both had LC50 values < 5 + 10-6M towards both *Rhizoctonia solani* and *Polyporus giganteus*. D735 was only slightly or moderately toxic to other fungi tested, except towards *Verticillium albo-atrum* and *Monilia cinerea* f. *americana* (LC50 values < 8 + 10-6M and < 5 + 10-6M, resp.). F427 was also highly toxic towards all members of *Porosporae* examined with LC50 values ranging 5 + 10-6M-2 + 10-6M against *Alternaria solani*, *Stemphylium botryosum*, *Bipolaris sorokiniana*, *Drechslera*, *Curvularia geniculata*, *Dichotomophthora indica*, *Dendryphiella salina*, *Dendryphion laxum*, and *Torula herbarum*. In the *Phialosporae*, F427 was highly toxic only to *Aspergillus* species and had LC50 values < 5 + 10-6M towards *A. amstelodami*, *A. flavus*, *A. fumigatus*, and *A. niger*. In the *Arthrosporeae*, F427 was moderately toxic to both species tested, with LC50 values of 20 + 10-6 and 9 + 10-6M towards *Amblyosporium botrytis* and *Oidiodendron truncatum*, resp.

In the *Blastosporae*, F427 was highly toxic to *Cladosporium cucumerinum*, *Botrytis* species, and *M. cinerea* f. *americana* with LC50 5 + 10-6M towards each of these species, but was only slightly inhibitory towards the yeasts *Rhodotorula aurantiaca*, and *Candida humicola*. F427 was not inhibitory towards any of the species of *Annelosporae*, *Symptodulosporae*, or *Aleuriosporae* examined, except towards *Pithomyces chartarum* (LC50 < 5 + 10-6M). In the *Phycomycetes*, F427 was highly toxic towards *Cunninghamella echinulata* and *Thamnidium elegans* but only moderately

toxic to *Mucor* species and *Rhizopus nigricans* LC50 values < 5 + 10-6, < 5 + 10-6, 22 + 10-6, and 27 + 10-6M, resp. Activity against *C. echinulata* suggests a possible activity of F427 against other mucorales such as *Choanephora cucurbitarum*, a parasite of cucurbits.

F427 therefore has a wider spectrum of fungicidal activity than D735, although it does show a preference for certain taxonomic groupings.

IT 6577-34-0P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RM 6577-34-0 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 50 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1967:95055 HCAPLUS

DOCUMENT NUMBER: 66:95055

TITLE: 2,3-Dihydro-5-carboxamide-6-methyl-1,4-oxathiin

PATENT ASSIGNEE(S): United States Rubber Co.

SOURCE: Neth. Appl., 18 pp.

CODEN: NAXXAN

DOCUMENT TYPE: Patent

LANGUAGE: Dutch

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 6605525	A	19661027	NL 1966-5525	19660425
US 3393202	A	19680716	US 1965-451048	19650426
BR 6677408	DO	19730809	BR 1966-177408	19660228
BE 679985	A	19661003	BE 1966-679985	19660425
IL 25635	A	19700420	IL 1966-25635	19660426
NL 6910431	A	19691027	NL 1969-10431	19690708
PRIORITY APPLN. INFO.:			US 1965-451048	A 19650426

GI For diagram(s), see printed CA Issue.

AB The title compds. (I) are prepared by reaction of an  $\alpha$ -chloroacetylacetamide or a lower alkyl ester of  $\alpha$ -chloroacetylacetic acid with HSC2H4OH. Thus, to 150 g. AcCH2CONHPh in 1 l. C6H6 was added

in 1.5 hrs. 72 ml. SO2Cl2, the mixture stirred 0.5 hrs., and filtered to yield

131 g. AcCHClCONHPh (II), m. 136-8°. To 63.5 g. II in 300 ml. C6H6 was added in 2 hrs. <30°, 20.4 g. KOH, 22.2 ml. HSC2H4OH, and 40 ml. MeOH and the mixture stirred 1 hr., filtered, the filtrate, concentrated, the residue dissolved in C6H6, acidified with 0.8 g. 4-MeC6H4SO3H, the

solution refluxed until 5 ml. H2O separated and concentrated to yield 45.8 g. I (R = NHPh).

(II), m. 93-5° (alc.). To 260 g. AcCH2CO2Et was added 270 g. SO2Cl2 in 3 hrs. at 0-5°, the mixture kept overnight, and distilled to yield 300 g. AcCHClCO2Et (IV), b16 88-90°. To 33 g. IV in 200 ml. C6H6 was added in 1.5 hrs. <30°, 13.6 g. KOH, 15 ml. HSC2H4OH, and 30 ml. MeOH, the mixture stirred 1.5 hrs., filtered, concentrated, the residue

taken up in C6H6, acidified with 4-MeC6H4SO3H, the solution refluxed until

3.4 ml. H2O separated, washed with H2O, and concentrated to yield 23 g. I (R = OEt).

(V), b1 107-10°. To 188 g. V in 50 ml. alc. was added 60 g. NaOH in 400 ml. H2O and the mixture refluxed 0.5 hrs., acidified with HCl, and filtered to yield 134 g. I (R = OH) (VI), m. 180-1° (alc.). To 32 g. VI in 200 ml. CHCl3 was added 16 ml. SOCl2, the mixture refluxed 2

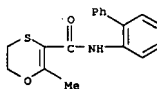
hrs., the solution concentrated, the residue dissolved in C6H6 and 37.2 g. PhNH2 in C6H6

added, to yield after work up 38 g. III. The following I were prepared by

similar methods (R, m.p., or b.p., and % yield given): NHC6H4CO2H-4, 249-51°, 47; morpholino, b2 168-70°, 80; NHH2, 190-3°, 75; NH2, 172-4°, 50; NHP-iso, 117-19°, 65; NHC2H2CH:CH2, 73°, 66; NHBu, 85-6°, 70; NHBu-iso,

L12 ANSWER 49 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

(Continued)



L12 ANSWER 50 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

(Continued)

50-1°, 65; NHC12H25, 72°, 64; cyclohexylamino, 127-8°, 77; NHC6H4NO2-4, 139-40°, 25; NHC6H4OEt-4, 120-2°, 50; NHC2HPh, 93°, 85; NHC6H4CO2H-2, 187-9°, 60; 2-furylamino, 103-4°, 81; N-pyridyl, -, 25; NPr2-iso, b3 119°, 64; NBU2, b12 200°, 40; N(CH2CH:CH2)2, b3 127°, 80; NET2, b3 132°, 60; NMePh, 11-14°, 72; NHC6H4Cl-4, 130-2° (MeOH), 48; NHC6H4Cl-2, 83-5°, 46; NHC6H4Me-2, 88-9° (MeOH), 81; NHC6H4OMe-2, 123-6° (MeOH), 45; NHC6H4Cl-3, 79-82° (MeOH), 68; NHC6H4Me-4, 95-8° (MeOH), 74; NHC6H4NO2-2, 129-32° (MeOH-Me2CO), 43; NHC6H4NO2-3, 118-20° and 123-5° (MeOH-Me2CO), 60;  $\alpha$ -naphthylamino, 125-7° (MeOH), 55;  $\beta$ -naphthylamino, 111-13° (MeOH), 60; NHC6H4Ph-4, 125-7°, 65; NHC6H4Ph-2, 83-6° (MeOH), 57; NHC6H4CO2Me-2, 123-5° (alc.), 44; NHC6H3Me-4, 2, 76-8°, 72; NHC6H4OMe-3, 83-4.5°, 65; NHC6H4OH-2, 129-32° (alc.), 61; NHC6H4OH-3, 170-2°, 52; NHHMe2, 122-5°, 52; NHC2H4Cl, 81-3°, 63; ethylenimine, b1 105°, 59; NHC6H4CF3-3, 70-2°, 61; NHC6H4Me-2, -, 71; NPHC2H4CN, 87-9°, 60; 2-benzothiazolylamino, 153-4°, 80; NHBu-tert, 48-51°, 78; NHC5H11, 80-2°, 75; NHC6H13, 82-4°, 71; NHC8H17, 74-5°, 84; NHC10H21, 46-7°, 88; NHC16H33, 74-5°, 66; NHC18H37, 79-80°, 74; NHC6H4Et-2, 78-80°, 82; NHC6H4Br-3, 92-3°, 61; NHC6H4Br-4, 119-20°, 86; NHC6H4CO2Et-4, 90-2°, 63; NHC6H4CONH2-2, 186-8°, 57; NHC6H4Ac-3, 117.5-19.5°, 68; NHC6H3Me2-3,2, 101.5-3.5°, 77; NHC6H3Cl2Et2-6,2, 81-3°, 58; NHC6H3MeCl-2,3, 136-8°, 64; NHC6H3Cl2-5,2, 120-2°, 56; NHC6H3Cl2-3,2, 105-7°, 81; NHC6H3Cl2-4,3, 106-8°, 59; NHC6H3Cl2-5,3, 147-9°, 76; NHC6H3MeCl-6,2, 82-4°, 57; NHC6H2Cl3-5,4,2, 166-8°, 70; NHC6H4Me-2, 57.5-60°, 49. Also prepd. was VII, m. 168°.

IT 6577-30-6P 6577-34-0P 6577-38-4P  
13582-27-9P 13582-44-0P 13582-62-2P  
13582-66-6P 13582-78-0P 13582-79-1P  
13582-84-8P 13582-86-0P 14316-45-1P

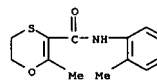
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RM 6577-30-6 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-

(9CI)

(CA INDEX NAME)

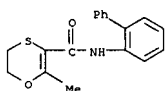


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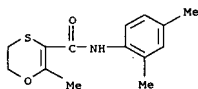
CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

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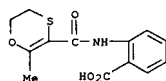
L12 ANSWER 50 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



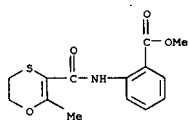
RN 6577-38-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 13582-27-9 HCAPLUS  
CN Anthranilic acid, N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]- (8CI) (CA INDEX NAME)

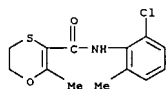


RN 13582-44-0 HCAPLUS  
CN Anthranilic acid, N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-, methyl ester (8CI) (CA INDEX NAME)

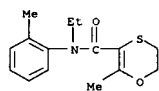


RN 13582-62-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

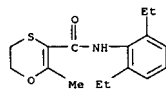
L12 ANSWER 50 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



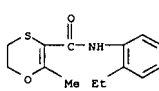
RN 13582-86-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxy-o-toluidide, N-ethyl-5,6-dihydro-2-methyl- (8CI) (CA INDEX NAME)



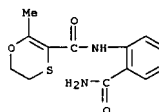
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CN 1,4-Oxathiin-3-carboxamide, N-(2,6-diethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



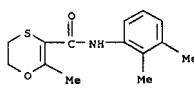
L12 ANSWER 50 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



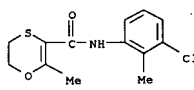
RN 13582-66-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxanilide, 2'-carbamoyl-5,6-dihydro-2-methyl- (8CI) (CA INDEX NAME)



RN 13582-78-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 13582-79-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 13582-84-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-chloro-6-methylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 51 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 22 Apr 2001

ACCESSION NUMBER: 1966:438564 HCAPLUS

DOCUMENT NUMBER: 65:38564

ORIGINAL REFERENCE NO.: 65:7190g-h, 7191a-b

TITLE: Carboxamidooxathiin biocides

INVENTOR(S): Von Schmeling, Bogislav; Kulka, Marshall; Thiara,

Dalel S.; Harrison, William A.

PATENT ASSIGNEE(S): United States Rubber Co.

SOURCE: 6 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3249499		19660503	US 1965-451011	19650426
PRIORITY APPL. INFO.:			US	19650426

GI For diagram(s), see printed CA Issue.

AB Systemic fungicides and bactericides (I) were prepared and tested against Uromyces phaseoli typica, Rhizoctonia solani, and Staphylococcus aureus.

The oxathiins were prepared by 2 methods: (a) reaction of an  $\alpha$ -chloroacetacetanilide with SO<sub>2</sub>Cl<sub>2</sub> in C<sub>6</sub>H<sub>6</sub>, then with HSC<sub>2</sub>H<sub>4</sub>OH (II) under basic conditions, followed by acid dehydration or (b) chlorination of the alkyl acetacetate with SO<sub>2</sub>Cl<sub>2</sub>, treatment with II, acid dehydration, alkaline hydrolysis, conversion to the acid chloride

with SO<sub>2</sub>Cl<sub>2</sub>, and reaction with an amine to form the amide. Thus, 2,3-dihydro-5-carboxanilido-6-methyl-1,4-oxathiin (Ia), m. 93-5° was prepared by adding a solution of 20.4 g. KOH, 22.5 g. II and 40 ml. MeOH to

a stirred suspension of 63.5 g.  $\alpha$ -chloroacetacetanilide and 300 ml. dry C<sub>6</sub>H<sub>6</sub> dropwise in 2 hrs. <30°. The mixture was stirred 1 hr., filtered, solvent stripped, extracted with C<sub>6</sub>H<sub>6</sub>, washed with H<sub>2</sub>O until neutral, acidified with 0.8 g. p-toluenesulfonic acid, refluxed to remove 5 ml. H<sub>2</sub>O washed, and stripped to give 65% I. The following I (R = H) were prepared (R', m.p., and % yield by method a and method b given): o-tolyl (III), 88-9°, 43, -; m-tolyl (IV), 83-5°, 46, 75; p-tolyl, 95-8°, -, 14; o-chlorophenyl, 83-5°, 44, -; p-chlorophenyl, 130-2°, 48, -; 2-biphenyl, 125-7°, -, 23; butyl, 85-6°, -, 70; cyclohexyl, 127-8°, -, 77; allyl, 73°, -, 66;  $\alpha$ -naphthyl, 125-7°, -, 21; p-ethoxyphenyl, 120-2°, -, 50; 2,4-dimethylphenyl, 75-8°, -, 32; n-methoxyphenyl, 83-4.5°, -, 65. I (R = Me, R' = Ph), m. 111-14°, was prepared in 72% yield by method b. In sprays at 50 ppm. Ia, III, and IV all gave 90-100% control of U. phaseoli typica which was also controlled by seed treatment with Ia at 8 oz./100 lb. seed or by soil

treatment at 20 ppm. R. solani on cotton seedlings was controlled by 20 ppm: Ia, III, or IV in the soil or by 2 oz. Ia/100 lb. seed. Ia 128 ppm. and III at 225 ppm. killed S. aureus.

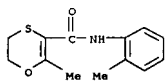
IT 6577-30-6P, 1,4-Oxathiin-3-carboxy-o-toluidide, 5,6-dihydro-2-methyl- 6577-34-0P, 1,4-Oxathiin-3-carboxanilide, 5,6-dihydro-2-methyl-2'-phenyl- 6577-38-4P, 1,4-Oxathiin-3-carboxy-2',4'-xylidide, 5,6-dihydro-2-methyl- RL: PREP (Preparation) (manufacture and use as pesticide)

RN 6577-30-6 HCAPLUS

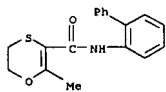
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)- (9CI)

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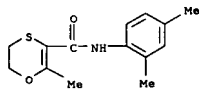
L12 ANSWER 51 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
(CA INDEX NAME)



RN 6577-34-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-  
(9CI) (CA INDEX NAME)



RN 6577-38-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-  
(9CI) (CA INDEX NAME)



## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	2	"7119049"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/04/05 12:19
S2	34	"3249499"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/04/05 13:10
S3	13	"0545099"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/04/05 13:10
S4	12	"545099"	EPO; DERWENT	OR	ON	2007/04/05 13:11
S5	8	"3657449"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:12
S6	5	"3538225"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:13
S7	48	"3917592"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:13
S8	7	"4032573"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:13
S9	6	"4194008"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:14
S10	24	"5223526"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:15
S11	12	"5416103"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:16
S12	30	"5438070"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:16
S13	9	"5633218"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:16
S14	1	"5914344"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:17
S15	8	"5922732"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:21
S16	6	"5965744"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:21
S17	1	"5965774"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:21
S18	8	"5968947"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:22

## EAST Search History

S19	4	"6093726"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:22
S20	3	"6174894"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:22
S21	5	"6177442"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:22
S22	3	"6207676"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:23
S23	4	"6291474"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:23
S24	3	"6391883"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:23
S25	2	"6573275"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:24
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S27	2	"20040082572"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:25
S28	2	"20050119130"	US-PGPUB; USPAT	OR	ON	2007/04/05 15:11
S29	305	549/14;514/433.ccls.	US-PGPUB; USPAT	OR	ON	2007/04/05 15:11
S30	323	549/14;514/433.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/04/05 15:11

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COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

147.42

495.33

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

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DICTIONARY FILE UPDATES: 1 APR 2007 HIGHEST RN 928822-97-3

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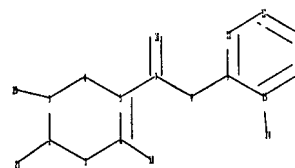
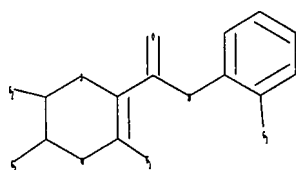
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ring nodes :  
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chain bonds :  
2-21 3-20 5-7 6-18 7-8 7-10 8-9 15-24  
ring bonds :  
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exact/norm bonds :  
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exact bonds :  
1-2 1-6 2-3 3-4 4-5 5-6 5-7  
normalized bonds :  
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G2:H,CH3

G3:Cb,Ak

10544897

Match level :

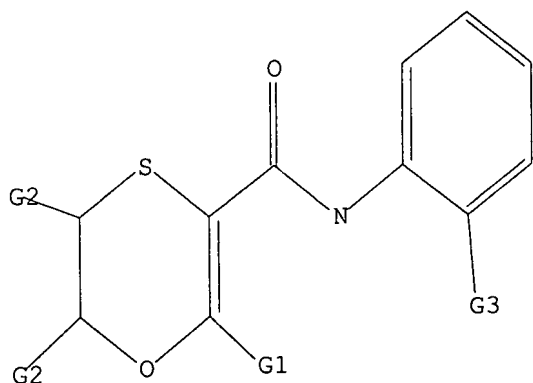
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11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 18:CLASS 20:CLASS 21:CLASS 24:CLASS

L9 STRUCTURE UPLOADED

=> d 19

L9 HAS NO ANSWERS

L9 STR



G1 Me,CF2,CF3,X,Cb

G2 H,Me

G3 Cb,Ak

Structure attributes must be viewed using STN Express query preparation.

=> s 19

SAMPLE SEARCH INITIATED 14:52:55 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 72 TO ITERATE

100.0% PROCESSED 72 ITERATIONS  
SEARCH TIME: 00.00.01

13 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 931 TO 1949  
PROJECTED ANSWERS: 44 TO 476

L10 13 SEA SSS SAM L9

=> s 19 full

FULL SEARCH INITIATED 14:53:02 FILE 'REGISTRY'

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SEARCH TIME: 00.00.01

395 ANSWERS

10544897

L12 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN

ED Entered STN: 28 Sep 2006

ACCESSION NUMBER: 2006:1006168 HCAPLUS

DOCUMENT NUMBER: 145:377349

TITLE: Preparation of carboxanilides as microbiocides

INVENTOR(S): Walter, Harald; Corsi, Camilla; Ehrenfreund, Josef;

Lamberth, Clemens; Tobler, Hans

Syngenta Participations A.-G., Switz.

PCT Int. Appl., 64pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006100039	A1	20060928	WO 2006-EP2595	20060321

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, GU, HK, HN, HU, ID, IL, IN, JP, KE, KG, KH, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

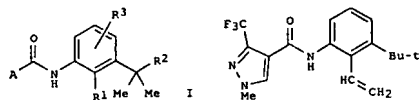
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MM, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: EP 2005-6382 A 20050323

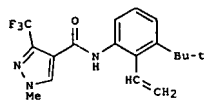
OTHER SOURCE(S):

MARPAT 145:377349

GI



AB Title compds. represented by the formula I [wherein R1 = (un)substituted alkyl, alkenyl or alkynyl; R2 = alkyl; R3 = H or halo; A = (un)substituted pyrazol-4-yl, imidazol-3-yl, triazol-4-yl, etc.; and their tautomers, isomers or enantiomers thereof] were prepared as microbiocides. For example, amidation of 1-methyl-3-trifluoromethyl-1H-pyrazole-4-carboxylic acid with (3-tert-butyl-2-vinylphenyl)amine (preparation given) provided II in 75% yield. Fungicidal formulations of I have been described, and their



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biol. activity against Brown rust on wheat, Powdery mildew on apple, Scab on apple, and etc., were tested.

IT 910873-96-OP 910873-97-1P 910873-98-2P

910873-99-3P 910874-00-9P 910874-01-OP

910874-02-1P 910874-03-2P 910874-04-3P

910874-05-4P 910874-06-5P 910874-07-6P

910874-08-7P 910874-09-8P 910874-10-1P

910874-11-2P 910874-12-3P 910874-13-4P

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910874-48-5P 910874-49-6P 910874-50-9P

910874-51-OP 910874-52-1P 910874-53-2P

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN

(Synthetic preparation); BIOL (Biological study); PREP (Preparation);

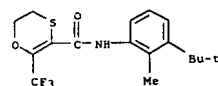
USES

(Uses)

(preparation of N-Ph heteroaryl carboxamides as microbiocides)

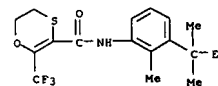
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RN 910873-97-1 HCAPLUS

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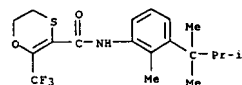


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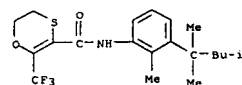


L12 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN (Continued)



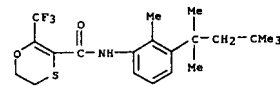
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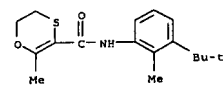
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RN 910874-01-0 HCAPLUS

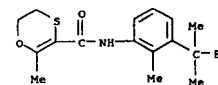
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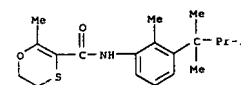
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L12 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN (Continued)



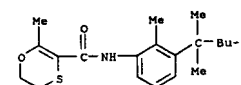
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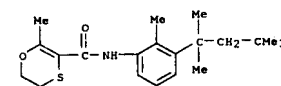
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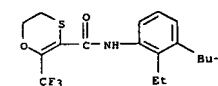
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RN 910874-06-5 HCAPLUS

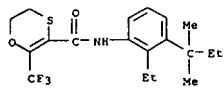
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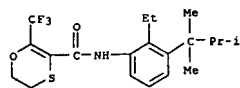
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L12 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

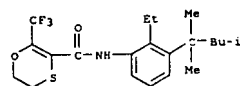
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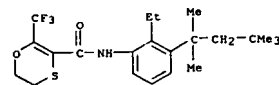
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RN 910874-09-8 HCAPLUS  
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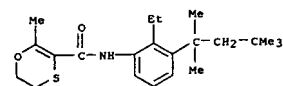


RN 910874-10-1 HCAPLUS  
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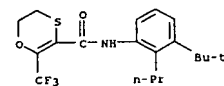


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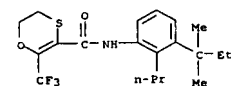
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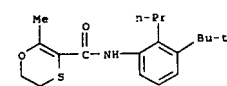
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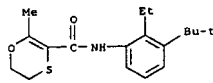


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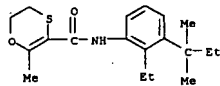


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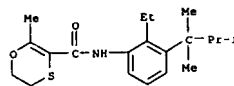
L12 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
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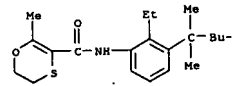
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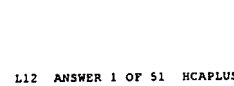
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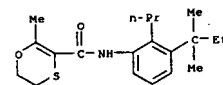
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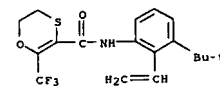
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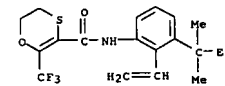
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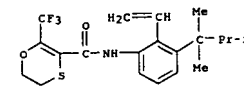
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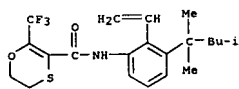
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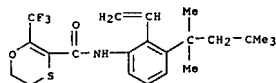
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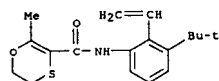
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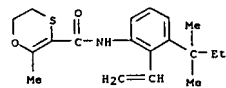
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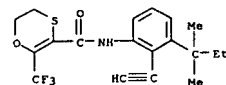


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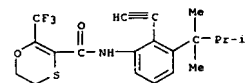


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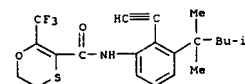
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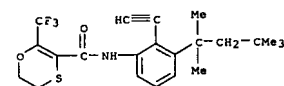
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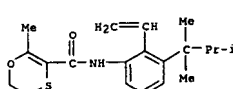


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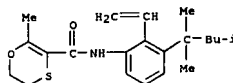


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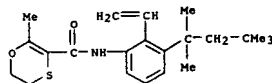
L12 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



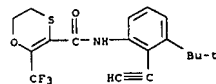
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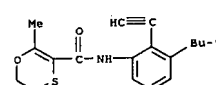


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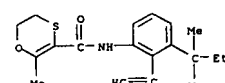


RN 910874-31-6 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[2-ethynyl-3-(1,1,2-trimethylpropyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

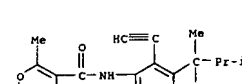
L12 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



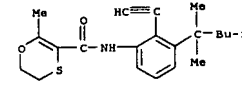
RN 910874-37-2 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[3-(1,1-dimethylpropyl)-2-ethynylphenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 910874-39-4 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[2-ethynyl-3-(1,1,3-trimethylbutyl)phenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



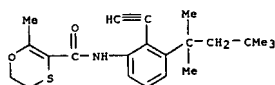
RN 910874-41-8 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[2-ethynyl-3-(1,1,3-trimethylbutyl)phenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



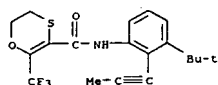
RN 910874-43-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[2-ethynyl-3-(1,1,3,3-tetramethylbutyl)phenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

10544897

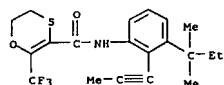
L12 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



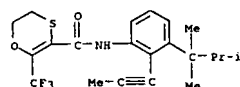
RN 910874-44-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
N-[3-(1,1-dimethylethyl)-2-(1-propynyl)phenyl]-  
5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 910874-45-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[3-(1,1-dimethylpropyl)-2-(1-propynyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

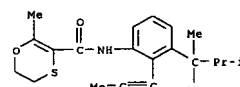


RN 910874-46-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-(1-propynyl)-3-(1,1,2-trimethylpropyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

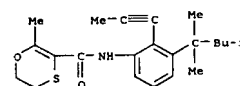


RN 910874-47-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-(1-propynyl)-3-(1,1,3-trimethylbutyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

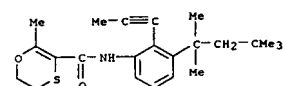
L12 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 910874-52-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(1-propynyl)-3-(1,1,3-trimethylbutyl)phenyl]- (9CI) (CA INDEX NAME)



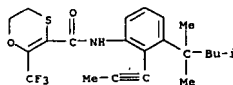
RN 910874-53-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(1-propynyl)-3-(1,1,3,3-tetramethylbutyl)phenyl]- (9CI) (CA INDEX NAME)



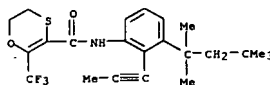
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

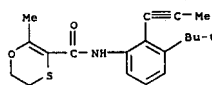
L12 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



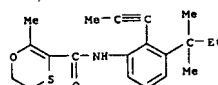
RN 910874-48-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-(1-propynyl)-3-(1,1,3,3-tetramethylbutyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 910874-49-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
N-[3-(1,1-dimethylethyl)-2-(1-propynyl)phenyl]-  
5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 910874-50-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[3-(1,1-dimethylpropyl)-2-(1-propynyl)phenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 910874-51-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(1-propynyl)-3-(1,1,2-trimethylpropyl)phenyl]- (9CI) (CA INDEX NAME)

L12 ANSWER 2 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 18 Aug 2005

ACCESSION NUMBER: 2005:611731 HCAPLUS

DOCUMENT NUMBER: 143:229543

TITLE: Preparation of benzanilides and related compounds as microbicides

INVENTOR(S): Dunkel, Ralf; Elbe, Hans-Ludwig; Hartmann, Benoit; Greul, Joerg Nico; Ilg, Kerstin; Wachendorff-Neumann, Ulrike; Dahmen, Peter; Kuck, Karl-Heinz  
Bayer Cropscience Aktiengesellschaft, Germany  
PCT Int. Appl., 91 pp.

SOURCE: CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005075411	A1	20050818	WO 2005-EP608	20050122
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MM, MZ, NA, SD, SL, SZ, TE, UG, ZM, ZW, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 102004005786	A1	20050825	DE 2004-102004005786	20040206
CA 2559396	A1	20050818	CA 2005-2559396	20050122
EP 1716099	A1	20061102	EP 2005-701115	20050122
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
PRIORITY APPL. INFO.:				DE 2004-102004005786A 20040206
				WO 2005-EP608 W 20050122

OTHER SOURCE(S): MARPAT 143:229543

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COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

147.42

495.33

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-20.28

-20.28

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DICTIONARY FILE UPDATES: 1 APR 2007 HIGHEST RN 928822-97-3

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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

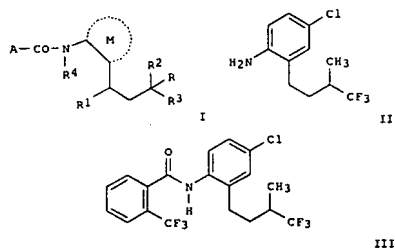
<http://www.cas.org/ONLINE/UG/regprops.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10544897s3.str

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L12 ANSWER 2 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



AB Title compds. I [R = H, halo; R1 = H, CH3; R2 = CH3, CH2CH3, haloalkyl, etc.; R3 = halo, haloalkyl, etc.; R4 = H, alkyl, alkylsulfinyl, etc.; M = (un)substituted Ph, pyridinyl, pyrimidinyl, etc.] were prepared for example, N-acylation of phenylamine II with 2-(trifluoromethyl)benzoyl chloride afforded benzanilide III 99% yield. In apple venturia

inaequalis protection assays, 6-examples of compds. I at 100 g/ha (sic), exhibited 93-100% protection after 10-days.

IT 862646-27-3P

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation);

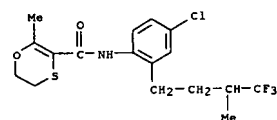
USES

(Uses)

(Preparation of benzanilides and related compds. for controlling microorganisms)

RN 862646-27-3 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-[4-chloro-2-(4,4,4-trifluoro-3-methylbutyl)phenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L12 ANSWER 3 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

NH, etc.; L1 = alkylene; L2 = bond, CO, etc.) are prepd. as bactericides and fungicides.

IT 862090-43-5P 862090-51-5P 862090-85-5P

862090-99-1P 862091-99-4P 862092-01-1P

862092-05-5P 862092-23-7P 862092-40-8P

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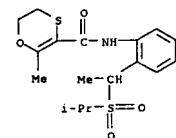
862093-66-1P 862093-70-7P

RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(Preparation as bactericide and fungicide)

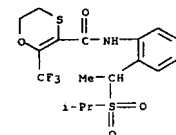
RN 862090-43-5 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-[[1-[(1-methylethyl)sulfonyl]ethyl]phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 862090-51-5 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-[[1-[(1-methylethyl)sulfonyl]ethyl]phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 862090-85-5 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-[[1-[(1-methylethyl)thio]ethyl]phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 3 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 18 Aug 2005

ACCESSION NUMBER: 2005:81644 HCAPLUS

DOCUMENT NUMBER: 143:188299

TITLE: Preparation of carboxamide derivatives as bactericides

and fungicides  
INVENTOR(S): Dunkel, Ralf; Elbe, Hans-Ludwig; Hartmann, Benoit; Greul, Joerg Nico; Herrmann, Stefan; Wachendorff-Neumann, Ulrike; Dahmen, Peter; Kuck, Karl-Heinz

PATENT ASSIGNEE(S): Bayer Cropscience Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 118 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

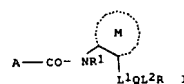
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005074686	A1	20050818	WO 2005-EP633	20050122
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RW: BW, GH, GM, KE, LS, MW, ME, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 102004005787	A1	20050825	DE 2004-102004005787	20040206
CA 2556078	A1	20050818	CA 2005-2556078	20050122
CN 1917763	A	20070221	CN 2005-80004212	20050122
PRIORITY APPLN. INFO.:			DE 2004-102004005787A	20040206
			WO 2005-EP633	W 20050122

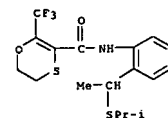
OTHER SOURCE(S): MARPAT 143:188299

G1



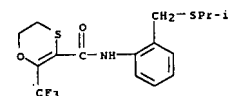
AB The carboxamides I [M = (un)substituted Ph, pyridinyl, pyrimidinyl, pyridazinyl, pyrazinyl or thiazoleyl A = (un)substituted Ph, pyrazolyl, pyridinyl, etc.; R = H, alkyl, alkoxyalkyl, etc.; R1 = H, alkyl, alkylsulfinyl, alkylsulfonyl, alkoxyalkyl, etc.; Q = O, S, SO, SO2.

L12 ANSWER 3 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



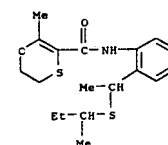
RN 862090-99-1 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-[[1-[(1-methylethyl)thio]methyl]phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



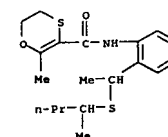
RN 862091-99-4 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-[[1-[(1-methylethyl)thio]methyl]phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



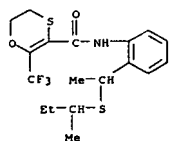
RN 862092-01-1 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-[[1-[(1-methylbutyl)thio]ethyl]phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

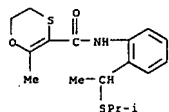


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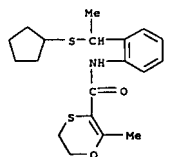
L12 ANSWER 3 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
 RN 862092-05-5 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-[[1-(1-methylpropyl)thio]ethyl]phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 862092-23-7 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[[1-(1-methylethyl)thio]ethyl]phenyl]- (9CI) (CA INDEX NAME)

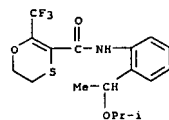


RN 862092-40-8 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[2-[[1-(cyclopentylthio)ethyl]phenyl]-5,6-dihydro-2-methyl]- (9CI) (CA INDEX NAME)

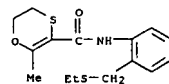


RN 862092-42-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[2-[[1-(cyclopentylthio)ethyl]phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

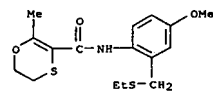
L12 ANSWER 3 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



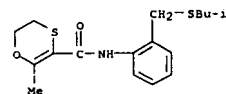
RN 862093-54-7 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[2-[[1-(cyclopentylthio)ethyl]phenyl]-5,6-dihydro-2-methyl]- (9CI) (CA INDEX NAME)



RN 862093-56-9 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[2-[[1-(cyclopentylthio)ethyl]phenyl]-5,6-dihydro-2-methyl]- (9CI) (CA INDEX NAME)

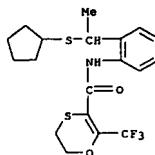


RN 862093-66-1 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[[1-(2-methylpropyl)thio]methyl]phenyl]- (9CI) (CA INDEX NAME)

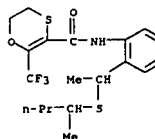


RN 862093-70-7 HCAPLUS  
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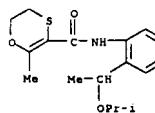
L12 ANSWER 3 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 862092-46-4 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-[[1-(2-methylbutyl)thio]ethyl]phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

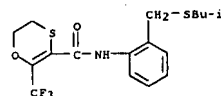


RN 862092-82-8 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[[1-(1-methylethoxy)ethyl]phenyl]- (9CI) (CA INDEX NAME)



RN 862093-00-3 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-[[1-(1-methylethoxy)ethyl]phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 3 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

10544897

L12 ANSWER 4 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN

ED Entered STN: 13 May 2005

ACCESSION NUMBER: 2005:409485 HCAPLUS

DOCUMENT NUMBER: 142:463762

TITLE: Preparation of pyrazolylcarboxanilides and related compounds as microbicides  
 INVENTOR(S): Elbe, Hans-Ludwig; Gebauer, Olaf; Greul, Joerg Nico; Hartmann, Benoit; Wachendorff-Neumann, Ulrike;

Dahmen,

Peter; Kuck, Karl-Heinz

PATENT ASSIGNEE(S): Bayer Cropscience Aktiengesellschaft, Germany;  
 Dunkel,

SOURCE: Ralf  
 PCT Int. Appl., 83 pp.  
 CODEN: PIXXD2

DOCUMENT TYPE: Patent  
 LANGUAGE: German

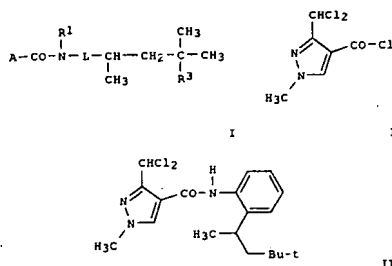
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005042493	A1	20050512	WO 2004-EP11397	20041012
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
DE 10352082	A1	20050525	DE 2003-10352082	20031107
IN 2004DE01799	A	20070112	IN 2004-DE1799	20040923
AU 2004285635	A1	20050512	AU 2004-285635	20041012
CA 2543052	A1	20050512	CA 2004-2543052	20041012
EP 1678142	A1	20060712	EP 2004-790293	20041012
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK			
CN 1871219	A	20061129	CN 2004-80031204	20041012
BR 2004015462	A	20061219	BR 2004-15462	20041012
US 2007037858	A1	20070215	US 2006-576243	20061027
PRIORITY APPLN. INFO.:			DE 2003-10349499	A 20031023
			DE 2003-10352082	A 20031107
			WO 2004-EP11397	W 20041012

OTHER SOURCE(S): MARPAT 142:463762  
 GI

L12 ANSWER 4 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN (Continued)



AB Title compds. I [A = substituted pyrazoles, thioles, pyridines, etc.; L = Ph, thioles with provisos; R3 = halo, alkyl, haloalkyl, etc.] were prepared

For example, N-acylation of [2-(1,3,3-trimethylbutyl)phenyl]amine with acid chloride II afforded pyrazolylcarboxanilide III in 89% yield. In venturia apple protection assays, 10-examples of compds. I exhibited 92-100% efficiency at 100 g/ha (sic) application. Compds. I are claimed to be useful for the controlling of undesired microorganisms.

IT 851764-67-SP 851764-68-6P  
 RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPH (Synthetic preparation); BIOL (Biological study); PREP (Preparation);

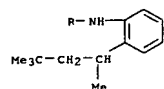
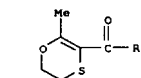
USES

(Uses)  
 (preparation of pyrazolylcarboxanilides and related compds. as microbicides)

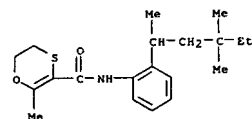
RN 851764-67-5 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(1,3,3-trimethylbutyl)phenyl]- (9CI) (CA INDEX NAME)

L12 ANSWER 4 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN (Continued)



RN 851764-68-6 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(1,3,3-trimethylbutyl)phenyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L12 ANSWER 5 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN

ED Entered STN: 13 May 2005

ACCESSION NUMBER: 2005:409484 HCAPLUS

DOCUMENT NUMBER: 142:463761

TITLE: Preparation of pyrazolylcarboxanilides and related compounds as microbicide agents  
 INVENTOR(S): Dunkel, Ralf; Elbe, Hans-Ludwig; Greul, Joerg Nico; Hartmann, Benoit; Wachendorff-Neumann, Ulrike;

Dahmen,

Peter; Kuck, Karl-Heinz

PATENT ASSIGNEE(S): Bayer Cropscience Aktiengesellschaft, Germany  
 SOURCE: PCT Int. Appl., 84 pp.  
 CODEN: PIXXD2

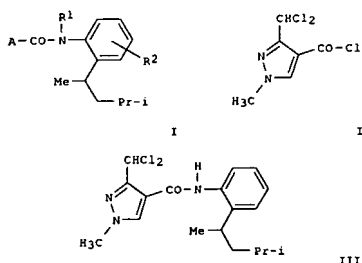
DOCUMENT TYPE: Patent  
 LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

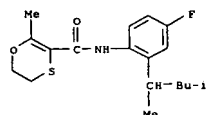
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005042492	A1	20050512	WO 2004-EP11394	20041012
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RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
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AU 2004285633	A1	20050512	AU 2004-285633	20041012
CA 2543050	A1	20050512	CA 2004-2543050	20041012
EP 1678141	A1	20060712	EP 2004-765931	20041012
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK			
CN 1871220	A	20061129	CN 2004-80031231	20041012
BR 2004015454	A	20061219	BR 2004-15454	20041012
PRIORITY APPLN. INFO.:			DE 2003-10349502	A 20031023
			WO 2004-EP11394	W 20041012

OTHER SOURCE(S): MARPAT 142:463761  
 GI



AB	Title compds. I [A = substituted pyrazoles, thioles, pyridines, etc.; R1 =
	H, alkyl, acylsulfanyl, etc.; R2 = H, F, Cl, etc.] were prepared. For
	example, N-acylation of 2-(1,3-dimethylbutyl)phenylamine with acid
	chloride II afforded pyrazolylcarboxanilide III in 70% yield. In
venturia	apple protection assays, 12-examples of compds. I exhibited 88-100%
	efficiency at 100 g/ha (sic) application. Compds. I are claimed to be
	useful for the controlling of undesired microorganisms.
IT	SP155-23-2P
	RL AGR (Agricultural use); BSU (Biological study, unclassified); SPH
	(Synthetic preparation); B10L (Biological study); PREP (Preparation);
USES	
	(Uses)
	(preparation of pyrazolylcarboxanilides and related compds. as
microbio	agents)
RN	851735-23-2 HCAPLUS
CN	1,4-oxathiazin-3-carboxamide, N-[2-(1,3-dimethylbutyl)-4-fluorophenyl]-5,6-
	dihydro-2-methyl- 18G1I (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS

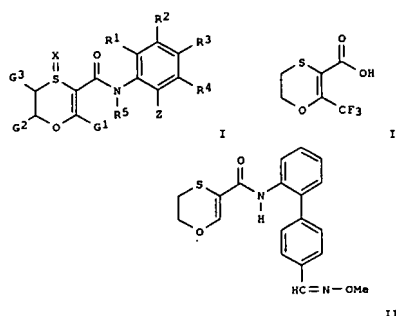
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L12 ANSWER 6 OF 51 HCAPPLUS COPYRIGHT 2007 ACS ON STN
ED Entered STN: 26 Aug 2004
ACCESSION NUMBER: 2004:696341 HCAPLUS
DOCUMENT NUMBER: 141:225520
TITLE: Preparation of oxathierylcarboxamides as microbicide
agents.
INVENTOR(S): Dunkel, Ralf; Elbe, Hans-Ludwig; Rieck, Heiko; Greul,
Nico Joerg; Wachendorff-Neumann, Ulrike; Dahmen,
Peter; Kuck, Karl-heinz; Hartmann, Benoit
PATENT ASSIGNEE(S): Bayer Cropscience Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 94 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004072023	A2	20040826	WO 2004-EP1053	20040205
WO 2004072023	A3	20050407		
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	GE, GH, GM, HR, HU, ID, IL, IN, IS,	JP, KE, KG, KP, KR, KZ, LC,		
	LK, LR, LS, LT, LU, LV, MA, MD,	HG, HK, HN, HM, KH, ME, NA, NI,		
RM:	BW, BG, GM, KE, LS, MM, NZ, SD,	SL, SE, SI, SM, SW, SZ, TH, TT,		
	GB, CH, CI, CZ, DE, DK, EE, ES, ET,	FI, FG, GG, GR, HU, IE, IT, LU,		
	MC, ML, PT, RO, SE, SI, SK, TR,	BF, BJ, CF, CG, CY, CM, GA, GN,		
	GO, GW, ML, MR, NE, SN, TD, TG			
DE 1036244	A1	20040826	DE 2003-10306244	20030214
DE 10321270	A1	20041202	DE 2003-10321270	20030513
AU 2004212056	A1	20040826	AU 2004-212056	20040205
CA 2519922	A1	20040826	CA 2004-2519922	20040205
EP 1599466	A2	20051130	EP 2004-708349	20040205
R:	AT, BE, CH, DE, DK, ES, FR, GB,	GR, IT, LI, LU, NL, SE, MK, PT,		
	IE, SI, LT, LV, FI, RO, MC, CY,	AL, TR, BG, CZ, EE, HU, SK		
BR 200007254	A	20060131	BR 2004-7254	20040205
JP 2006517555	T	20060727	JP 2006-501745	20040205
US 2007004793	A	20070104	US 2006-544897	20060202
PRIORITY APPLN. INFO.:			DE 2003-10306244	A 20030214
			DE 2003-10321270	A 20030513
			WO 2004-EP1053	A 20040205

OTHER SOURCE(S): MARPAT 141:225520  
GI



AB Title: compds. IF[1] = halo, CF3, CHF2, cyclopropyl; G2, G3 = H, CH3; R1, R2, R3, R4 = H, F, Cl, CH3, etc.; R5 = H, alkyl, alkylsulfinyl, etc.; Z = Z1, Z2, Z3, Z4; Z1 = (un)substituted phenyl; Z2 = (un)substituted cycloalkyl, bicycloalkyl; Z3 = (un)substituted alkyl, cycloalkyl; Z4 = (un)substituted cycloalkyl, alkenyl, alkynyl, etc.; X = O(n; n = 0-2) and their pharmaceutically acceptable salts were prepared. For example,

coupling  
of 2'-aminobiphenyl-4-carbaldehyde-O-methyloxime and oxathienylcarboxylic acid 11, e.g., propyl, 4-oxa-1,3-dioxane-5-carboxylic acid, 4-oxa-1,3-dioxane-5-ethyl-2-chloro-3-keto-4,4,4-trifluorobutyrate in 3-steps, afforded oxathienylcarboxamide III in 21% yield. In venturax apple protection assays, 8-examples of compds. I exhibited 100% efficiency

at 100 g/ha (sic) application.

IT

746624-50-0P	746624-51-1P	746624-52-2P
746624-53-3P	746624-54-4P	746624-55-5P
746624-56-6P	746624-57-7P	746624-58-8P
746624-59-9P	746624-60-2P	746624-62-4P
746624-63-5P	746624-64-6P	746624-65-7P
746624-66-8P	746624-67-9P	746624-68-0P
746624-69-1P	746624-70-4P	746624-71-5P
746624-72-6P	746624-73-7P	746624-74-8P
746624-75-2P	746624-76-0P	746624-77-1P
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746624-96-4P	746624-97-5P	746624-98-6P
746624-99-7P	746625-00-3P	746625-01-4P
746625-02-5P	746625-03-6P	746625-04-7P
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746625-10-5P	746625-12-7P	746625-13-8P

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L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

746625-14-9P 746625-15-0P 746625-16-1P  
 746625-17-2P 746625-18-3P 746625-19-4P  
 746625-20-7P 746625-21-8P 746625-22-9P  
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 746625-26-3P 746625-27-4P 746625-28-5P  
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 746637-96-7P 746637-97-8P 746637-98-9P  
 746637-99-0P 746638-00-6P 746638-01-7P  
 746638-02-8P 746638-03-9P 746638-04-0P  
 746638-05-1P 746638-06-2P 746638-07-3P  
 746638-08-4P 746638-09-5P 746638-10-8P  
 746638-11-9P 746638-12-0P

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN  
 (Synthetic preparation); BIOL (Biological study); PREP (Preparation);

USES

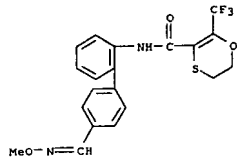
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(prepn. of oxathienylcarboxamides as microbicide agents.)

RN 746624-50-0 HCAPLUS

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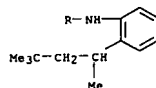
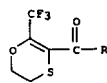
5,6-dihydro-N-[4'-([methoxyimino)methyl][1,1'-  
 biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 746624-51-1 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-[2-(1,3,3-trimethylbutyl)phenyl]- (9CI) (CA INDEX NAME)

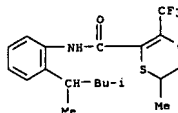
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-52-2 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide,

N-[2-(1,3-dimethylbutyl)phenyl]-5,6-dihydro-5-  
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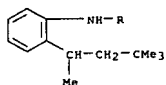
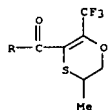


RN 746624-53-3 HCAPLUS

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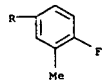
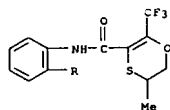
5,6-dihydro-5-methyl-2-(trifluoromethyl)-N-[2-  
 (1,3,3-trimethylbutyl)phenyl]- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-54-4 HCAPLUS

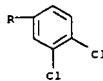
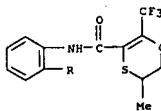
CN 1,4-Oxathiin-3-carboxamide, N-[4'-fluoro-3'-methyl[1,1'-biphenyl]-2-yl]-  
 5,6-dihydro-5-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 746624-55-5 HCAPLUS

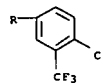
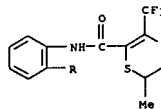
CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6-  
 dihydro-5-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-56-6 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-[4'-chloro-3'-(trifluoromethyl)[1,1'-  
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 INDEX NAME)

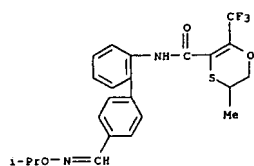


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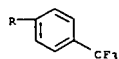
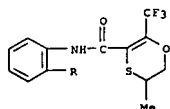
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-5-methyl-N-(4'-[[1-(1-  
 methylethoxy)imino]methyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)-  
 (9CI) (CA INDEX NAME)

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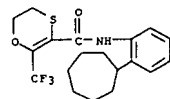
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN (Continued)



RN 746624-58-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
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(trifluoromethyl)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)

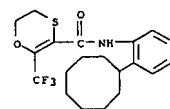


RN 746624-59-9 HCAPLUS  
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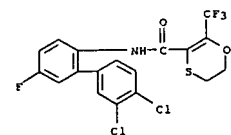


RN 746624-60-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclopentylphenyl)-5,6-dihydro-2-  
(trifluoromethyl)- (9CI) (CA INDEX NAME)

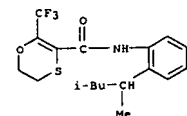
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN (Continued)



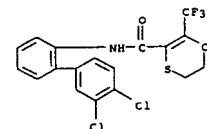
RN 746624-66-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro-5-fluoro[1,1'-biphenyl]-2-  
yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 746624-67-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
N-[2-(1,3-dimethylbutyl)phenyl]-5,6-dihydro-2-  
(trifluoromethyl)- (9CI) (CA INDEX NAME)

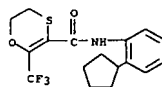


RN 746624-68-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6-  
dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

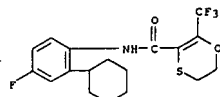


RN 746624-69-1 HCAPLUS

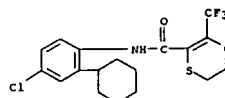
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN (Continued)



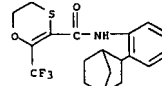
RN 746624-62-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
N-(2-cyclohexyl-4-fluorophenyl)-5,6-dihydro-2-  
(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 746624-63-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
N-(4-chloro-2-cyclohexylphenyl)-5,6-dihydro-2-  
(trifluoromethyl)- (9CI) (CA INDEX NAME)

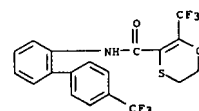


RN 746624-64-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-bicyclo[2.2.1]hept-2-ylphenyl)-5,6-  
dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

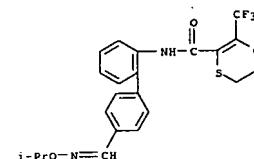


RN 746624-65-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclooctylphenyl)-5,6-dihydro-2-  
(trifluoromethyl)- (9CI) (CA INDEX NAME)

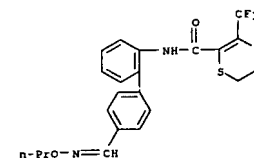
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN (Continued)  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-[4'-  
(trifluoromethyl)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)



RN 746624-70-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[4'-[[[1-  
methylethoxy]imino]methyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)-  
(9CI)  
(CA INDEX NAME)



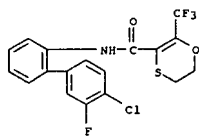
RN 746624-71-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
5,6-dihydro-N-[4'-[(propoxyimino)methyl][1,1'-  
biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



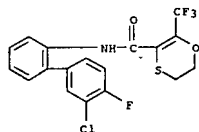
RN 746624-72-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-chloro-3'-fluoro[1,1'-biphenyl]-2-yl)-  
5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

10544897

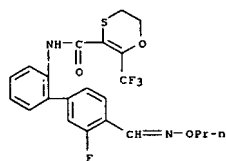
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-73-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-4'-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

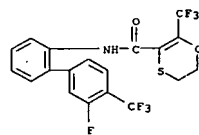


RN 746624-74-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-fluoro-4'-[(propoxyimino)methyl][1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

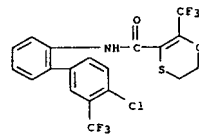


RN 746624-75-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-chloro-2'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

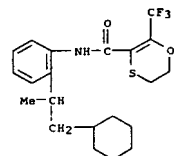
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-79-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-chloro-3'-(trifluoromethyl)[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

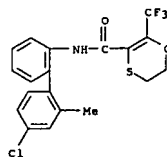


RN 746624-80-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-(2-cyclohexyl-1-methylethyl)phenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

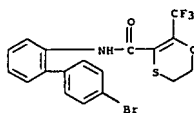


RN 746624-81-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3',5'-difluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

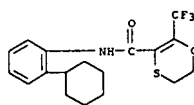
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-76-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-bromo[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

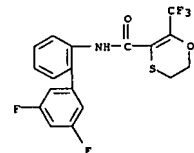


RN 746624-77-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclohexylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

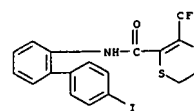


RN 746624-78-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-fluoro-4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

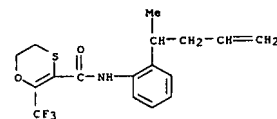
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-82-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-iodo[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



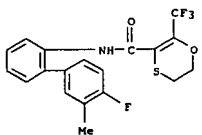
RN 746624-83-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-(1-methyl-3-butenyl)phenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



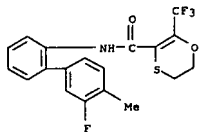
RN 746624-84-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-fluoro-3'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

10544897

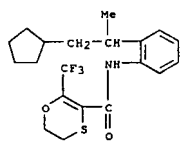
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-85-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-fluoro-4'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

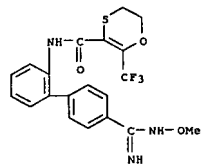


RN 746624-96-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-[(2-cyclopentyl-1-methylethyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

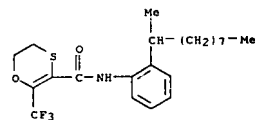


RN 746624-87-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-4'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

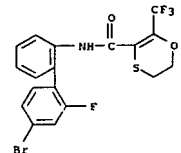
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-91-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-4'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

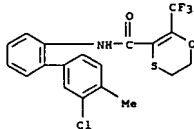


RN 746624-92-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-bromo-2'-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

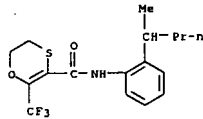


RN 746624-93-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-5'-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

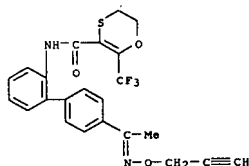
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-88-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-4'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

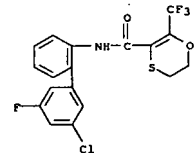


RN 746624-89-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-[(2-propynyloxy)imino]ethyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

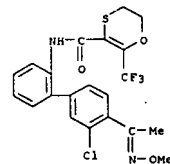


RN 746624-90-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-[(2-propynyloxy)imino]ethyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

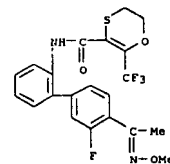
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-94-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-4'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



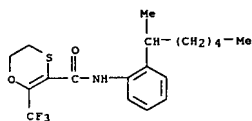
RN 746624-95-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-4'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



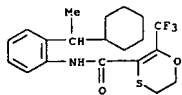
RN 746624-96-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-4'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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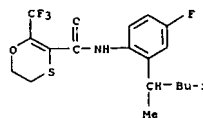
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



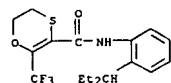
RN 746624-97-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(1-cyclohexylethyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 746624-98-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(1,3-dimethylbutyl)-4-fluorophenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

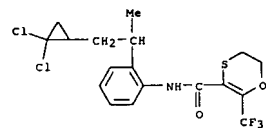


RN 746624-99-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(1-ethylpropyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

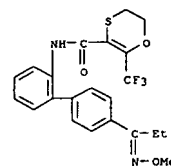


RN 746625-00-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[4-fluoro-2-(1-methylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

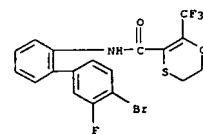
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-04-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(1-methylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

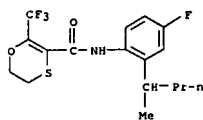


RN 746625-05-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(1-methylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

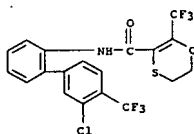


RN 746625-06-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(1-methylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

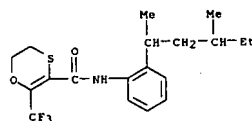
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-01-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(1-methylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

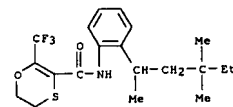


RN 746625-02-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(1-methylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

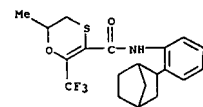


RN 746625-03-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(1-methylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

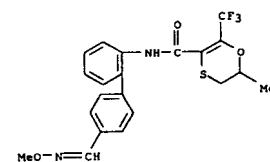
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-07-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(1-methylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



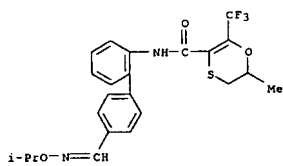
RN 746625-10-5 HCAPLUS  
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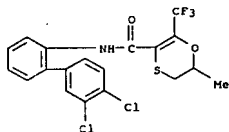
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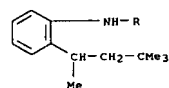
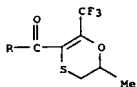
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-13-8 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

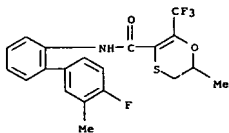


RN 746625-14-9 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-6-methyl-2-(trifluoromethyl)-N-(2-(1,3,3-trimethylbutyl)phenyl)- (9CI) (CA INDEX NAME)

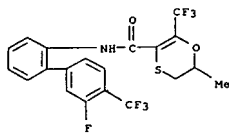


RN 746625-15-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro-5-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

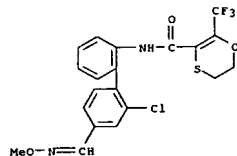
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-19-4 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(3'-fluoro-4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

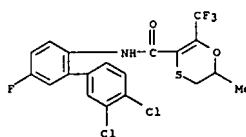


RN 746625-20-7 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2'-chloro-4'-(methoxyimino)methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

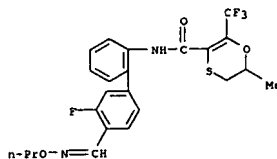


RN 746625-21-8 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(3',5,5'-trifluoro[1,1'-biphenyl]-2-yl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

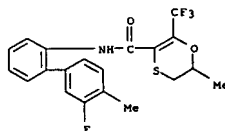
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-16-1 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(3'-fluoro-4'-[(propoxyimino)methyl][1,1'-biphenyl]-2-yl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

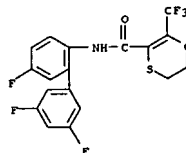


RN 746625-17-2 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(3'-fluoro-4'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

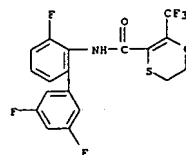


RN 746625-18-3 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(4'-fluoro-3'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

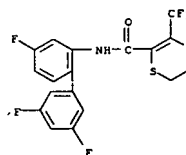
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-22-9 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(3,3',5'-trifluoro[1,1'-biphenyl]-2-yl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



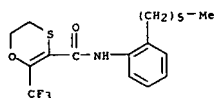
RN 746625-23-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(3',4,5'-trifluoro[1,1'-biphenyl]-2-yl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



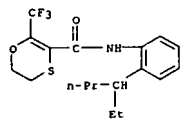
RN 746625-24-1 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2-hexylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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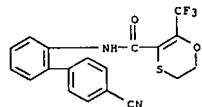
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-25-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-((1-ethylbutyl)phenyl)-5,6-dihydro-2-(trifluoromethyl)-] (9CI) (CA INDEX NAME)

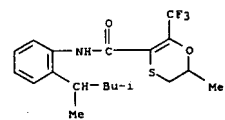


RN 746625-26-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-((1-ethylbutyl)phenyl)-5,6-dihydro-2-(trifluoromethyl)-] (9CI) (CA INDEX NAME)

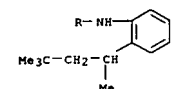
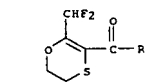


RN 746625-27-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-((1-ethylbutyl)phenyl)-5,6-dihydro-2-(trifluoromethyl)-] (9CI) (CA INDEX NAME)

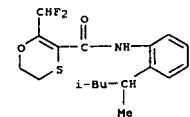
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746637-91-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 2-(difluoromethyl)-5,6-dihydro-N-[2-((1,3,3-trimethylbutyl)phenyl)-] (9CI) (CA INDEX NAME)

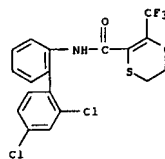


RN 746637-92-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 2-(difluoromethyl)-N-[2-((1,3,3-trimethylbutyl)phenyl)-5,6-dihydro-] (9CI) (CA INDEX NAME)

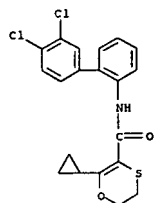


RN 746637-94-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-((1-ethylbutyl)phenyl)-5,6-dihydro-2-(difluoromethyl)-] (9CI) (CA INDEX NAME)

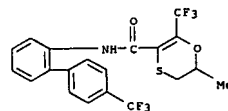
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-28-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 2-cyclopropyl-N-[3',4'-dichloro[1,1'-biphenyl]-2-yl]-5,6-dihydro- (9CI) (CA INDEX NAME)

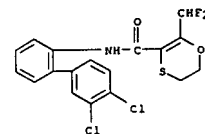


RN 746637-89-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-((1-ethylbutyl)phenyl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)-] (9CI) (CA INDEX NAME)

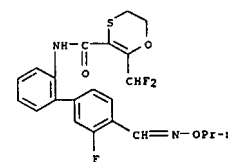


RN 746637-90-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-((1-ethylbutyl)phenyl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)-] (9CI) (CA INDEX NAME)

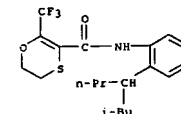
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



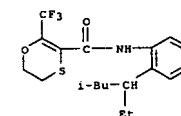
RN 746637-95-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 2-(difluoromethyl)-N-[3'-fluoro-4'-[[propoxyimino)methyl][1,1'-biphenyl]-2-yl]-5,6-dihydro- (9CI) (CA INDEX NAME)



RN 746637-96-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-((3-methyl-1-propylbutyl)phenyl)-2-(trifluoromethyl)-] (9CI) (CA INDEX NAME)



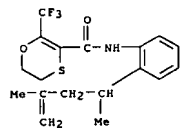
RN 746637-97-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-((1-ethyl-3-methylbutyl)phenyl)-5,6-dihydro-2-(trifluoromethyl)-] (9CI) (CA INDEX NAME)



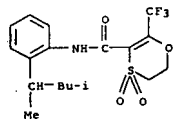
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L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

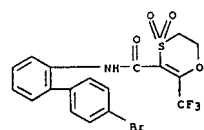
RN 746637-98-9 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[2-(1,3-dimethyl-3-butenyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 746637-99-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[2-(1,3-dimethylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)-, 4,4-dioxide (9CI) (CA INDEX NAME)

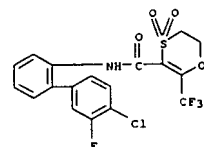


RN 746638-00-6 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(4'-bromo[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)-, 4,4-dioxide (9CI) (CA INDEX NAME)

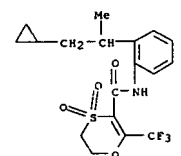


RN 746638-01-7 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(4'-chloro-2'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)-, 4,4-dioxide (9CI) (CA INDEX NAME)

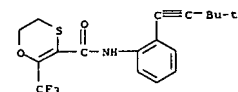
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746638-05-1 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[2-(2-cyclopropyl-1-methylethyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)-, 4,4-dioxide (9CI) (CA INDEX NAME)

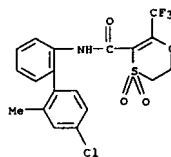


RN 746638-06-2 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[2-(3,3-dimethyl-1-butyryl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

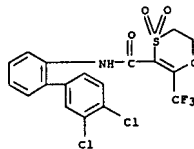


RN 746638-07-3 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(4'-bromo-3'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

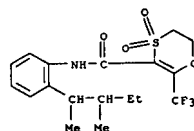
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746638-02-8 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)-, 4,4-dioxide (9CI) (CA INDEX NAME)

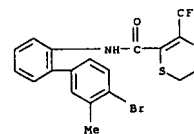


RN 746638-03-9 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[2-(1,2-dimethylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)-, 4,4-dioxide (9CI) (CA INDEX NAME)

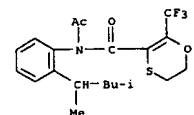


RN 746638-04-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(4'-chloro-3'-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)-, 4,4-dioxide (9CI) (CA INDEX NAME)

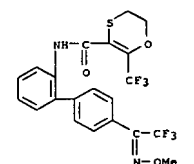
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746638-08-4 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-acetyl-N-[2-(1,3-dimethylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



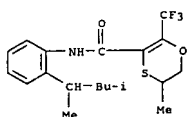
RN 746638-09-5 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[4'-[2,2,2-trifluoro-1-(methoxyimino)ethyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



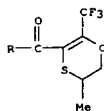
RN 746638-10-8 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[2-(2,2-dichloro-1-methylcyclopropyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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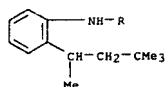
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



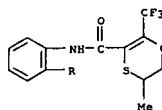
RN 746624-53-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
5,6-dihydro-5-methyl-2-(trifluoromethyl)-N-(2-  
(1,3,3-trimethylbutyl)phenyl)- (9CI) (CA INDEX NAME)



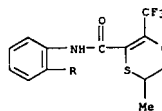
RN 746624-54-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-fluoro-3'-methyl[1,1'-biphenyl]-2-yl)-  
5,6-dihydro-5-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



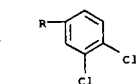
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



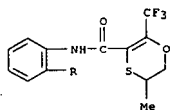
RN 746624-55-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6-  
dihydro-5-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



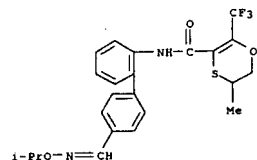
RN 746624-56-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-chloro-3'-(trifluoromethyl)[1,1'-  
biphenyl]-2-yl)-5,6-dihydro-5-methyl-2-(trifluoromethyl)- (9CI) (CA  
INDEX NAME)



L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

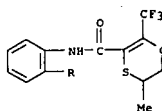


RN 746624-57-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-5-methyl-N-(4'-[[[1-(  
methylethoxy)imino]methyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)-  
(9CI) (CA INDEX NAME)

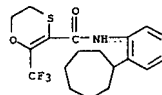


RN 746624-58-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
5,6-dihydro-5-methyl-2-(trifluoromethyl)-N-(4'-  
(trifluoromethyl)[1,1'-biphenyl]-2-yl)- (9CI) (CA INDEX NAME)

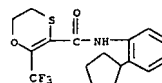
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



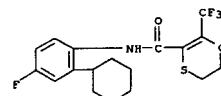
RN 746624-59-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-cycloheptylphenyl)-5,6-dihydro-2-  
(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 746624-60-2 HCAPLUS  
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(trifluoromethyl)- (9CI) (CA INDEX NAME)



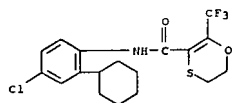
RN 746624-62-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
N-(2-cyclohexyl-4-fluorophenyl)-5,6-dihydro-2-  
(trifluoromethyl)- (9CI) (CA INDEX NAME)



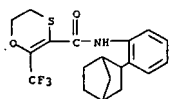
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L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

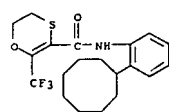
RN 746624-63-5 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide,  
 N-(4-chloro-2-cyclohexylphenyl)-5,6-dihydro-2-  
 (trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 746624-64-6 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2-bicyclo[2.2.1]hept-2-ylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

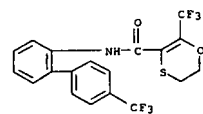


RN 746624-65-7 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclooctylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

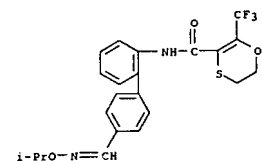


RN 746624-66-8 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro-5-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

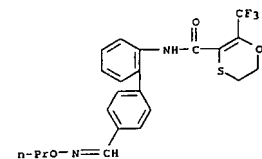
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-70-4 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[4'-[[(1-methylethoxy)imino]methyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

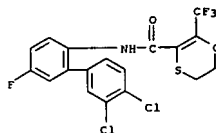


RN 746624-71-5 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide,  
 5,6-dihydro-N-[4'-[(propoxyimino)methyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

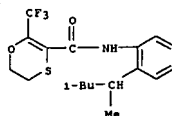


RN 746624-72-6 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(4'-chloro-3'-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

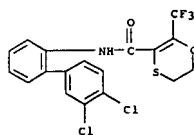
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-67-9 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide,  
 N-[2-(1,3-dimethylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

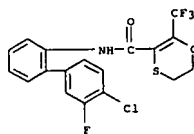


RN 746624-68-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

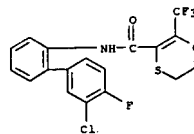


RN 746624-69-1 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-[4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)

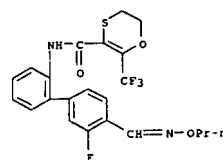
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-73-7 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-4'-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



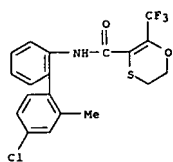
RN 746624-74-8 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[3'-fluoro-4'-[(propoxyimino)methyl][1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



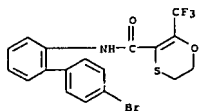
RN 746624-75-9 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(4'-chloro-2'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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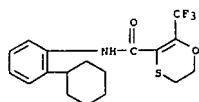
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-76-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
N-(4'-bromo[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-  
(trifluoromethyl)- (9CI) (CA INDEX NAME)

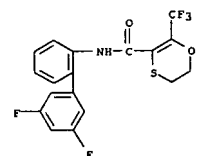


RN 746624-77-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclohexylphenyl)-5,6-dihydro-2-  
(trifluoromethyl)- (9CI) (CA INDEX NAME)

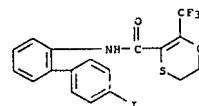


RN 746624-78-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-fluoro-4'-(trifluoromethyl)[1,1'-  
biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

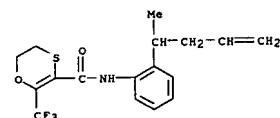
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-82-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
5,6-dihydro-N-(4'-iodo[1,1'-biphenyl]-2-yl)-2-  
(trifluoromethyl)- (9CI) (CA INDEX NAME)

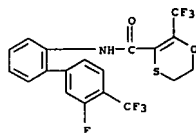


RN 746624-83-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
5,6-dihydro-N-[2-(1-methyl-3-butenyl)phenyl]-2-  
(trifluoromethyl)- (9CI) (CA INDEX NAME)

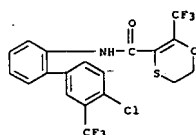


RN 746624-84-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-fluoro-3'-methyl[1,1'-biphenyl]-2-yl)-  
5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

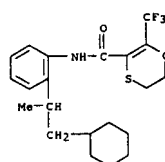
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-79-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[4'-chloro-3'-(trifluoromethyl)[1,1'-  
biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

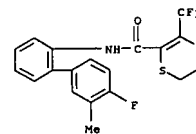


RN 746624-80-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(2-cyclohexyl-1-methylethyl)phenyl]-5,6-  
dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

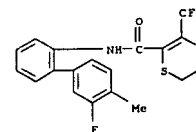


RN 746624-81-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3',5'-difluoro[1,1'-biphenyl]-2-yl)-5,6-  
dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

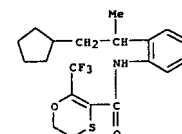
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-85-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-fluoro-4'-methyl[1,1'-biphenyl]-2-yl)-  
5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



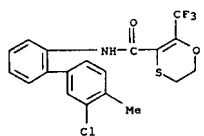
RN 746624-86-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
N-[2-(2-cyclopentyl-1-methylethyl)phenyl]-5,6-  
dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



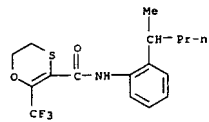
RN 746624-87-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-4'-methyl[1,1'-biphenyl]-2-yl)-  
5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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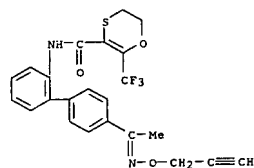
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-88-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-(1-methylbutyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

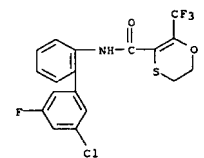


RN 746624-89-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[4'-[1-[(2-propenyloxy)imino]ethyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

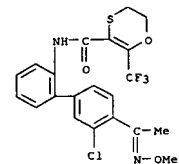


RN 746624-90-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[4'-[1-[(2-propenyloxy)imino]ethyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

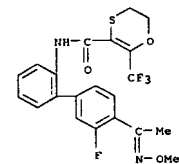
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-94-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[3'-chloro-4'-[1-(methoxyimino)ethyl][1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

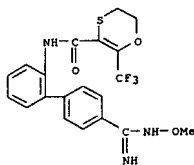


RN 746624-95-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[3'-fluoro-4'-[1-(methoxyimino)ethyl][1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

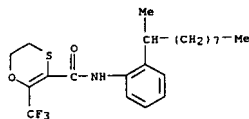


RN 746624-96-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-(1-methylhexyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

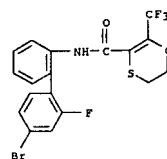
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746624-91-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-(1-methylnonyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

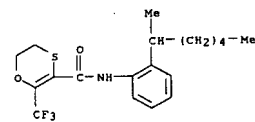


RN 746624-92-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-bromo-2'-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

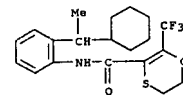


RN 746624-93-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-5'-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

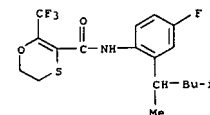
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



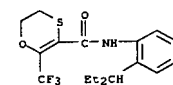
RN 746624-97-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(1-cyclohexylethyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 746624-98-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(1,3-dimethylbutyl)-4-fluorophenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



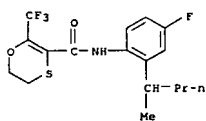
RN 746624-99-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(1-ethylpropyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



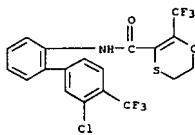
RN 746625-00-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[4-fluoro-2-(1-methylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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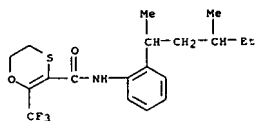
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-01-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

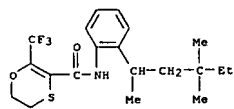


RN 746625-02-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-(2-(2,2-dichlorocyclopropyl)-1-methylethyl)phenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

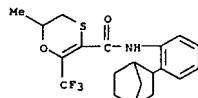


RN 746625-03-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-(2-(2,2-dichlorocyclopropyl)-1-methylethyl)phenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

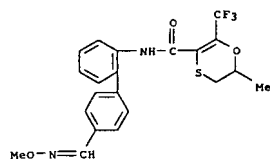
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-07-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-bicyclo[2.2.1]hept-2-ylphenyl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

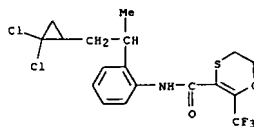


RN 746625-10-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-[(methoxyimino)methyl][1,1'-biphenyl]-2-yl)-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

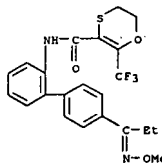


RN 746625-12-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-[(methoxyimino)methyl][1,1'-biphenyl]-2-yl)-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

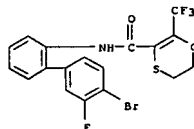
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-04-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-[1-(methoxyimino)propyl][1,1'-biphenyl]-2-yl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

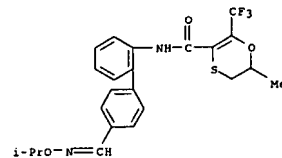


RN 746625-05-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-bromo-3'-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

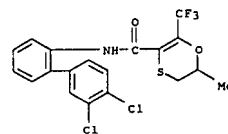


RN 746625-06-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-bromo-3'-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

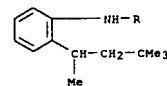
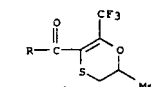
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-13-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



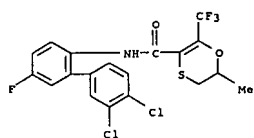
RN 746625-14-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



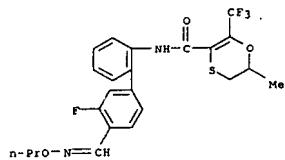
RN 746625-15-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

10544897

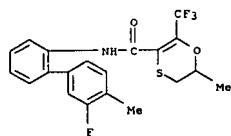
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-16-1 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[3'-fluoro-4'-[propoxyimino)methyl][1,1'-biphenyl]-2-yl]-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

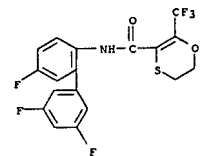


RN 746625-17-2 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[3'-fluoro-4'-methyl[1,1'-biphenyl]-2-yl]-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

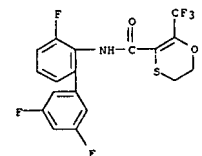


RN 746625-18-3 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(4'-fluoro-3'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

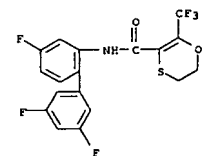
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-22-9 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(3,3',5'-trifluoro[1,1'-biphenyl]-2-yl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

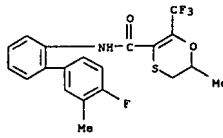


RN 746625-23-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(3',4,5'-trifluoro[1,1'-biphenyl]-2-yl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

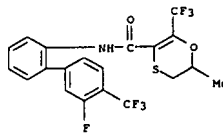


RN 746625-24-1 HCAPLUS  
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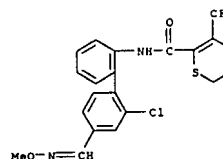
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746625-19-4 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[3'-fluoro-4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

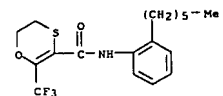


RN 746625-20-7 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[2'-chloro-4'-(methoxyimino)methyl][1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

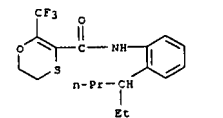


RN 746625-21-8 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(3',5,5'-trifluoro[1,1'-biphenyl]-2-yl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

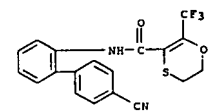
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



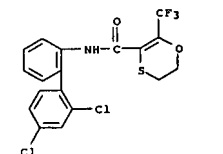
RN 746625-25-2 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[2-(1-ethylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 746625-26-3 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(4'-cyano[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



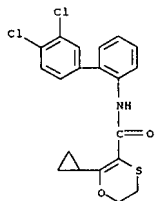
RN 746625-27-4 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



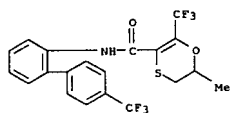
RN 746625-28-5 HCAPLUS

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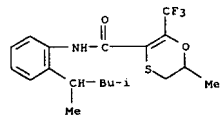
L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
 CN 1,4-Oxathiin-3-carboxamide,  
 2-cyclopropyl-N-[(3',4'-dichloro[1,1'-biphenyl]-  
 2-yl)-5,6-dihydro- (9CI) (CA INDEX NAME)



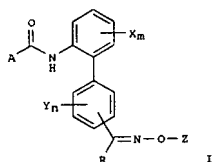
RN 746637-89-8 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide,  
 5,6-dihydro-6-methyl-2-(trifluoromethyl)-N-[4'-  
 (trifluoromethyl)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)



RN 746637-90-1 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide,  
 N-[2-(1,3-dimethylbutyl)phenyl]-5,6-dihydro-6-  
 methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

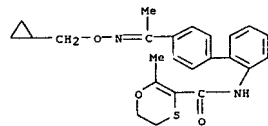


L12 ANSWER 8 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



AB Title compds. [I: R = H, alkyl, haloalkyl; Z = alkenyl, alkynyl, haloalkenyl, haloalkynyl; X, Y = halo, cyano, NO<sub>2</sub>, alkyl, alkoxy, alkylthio, haloalkyl, haloalkoxy, haloalkylthio; m, n = 0-4; A = 5-6 membered substituted heterocycl[yl], were prepared Thus, 2'-amino-1,1'-biphenyl-4-carbaldehyde O-allyloxime (preparation given) and Et<sub>3</sub>N was treated with 4-difluoromethyl-2-methylthiazole-5-carbonyl chloride in PhMe at 200m temperature followed by stirring for 3 h at 50° to give 49.6% N-(4'-[(E)-[(allyloxy)imino]methyl]-1,1'-biphenyl-2-yl)-4-(difluoromethyl)-2-methyl-1,3-thiazole-5-carboxamide. The latter at 100 ppm gave 100% control of Venturia inaequalis.  
 IT 705944-48-5P 705944-84-9P  
 RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation);  
 USES  
 (Uses)  
 (preparation of biphenylcarboxamides as agricultural fungicides and insecticides)

RN 705944-48-5 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide,  
 N-[4'-[1-[(cyclopropylmethoxy)imino]ethyl][1,1'-biphenyl]-2-yl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 705944-84-9 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[4'-[1-[(2-propenyloxy)imino]ethyl][1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)

L12 ANSWER 8 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 24 Jun 2004

ACCESSION NUMBER: 2004:509994 HCAPLUS

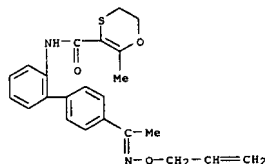
DOCUMENT NUMBER: 141:54333

TITLE: Preparation of biphenylcarboxamides as agricultural fungicides and insecticides  
 INVENTOR(S): Dunkel, Ralf; Elbe, Hans-Ludwig; Rieck, Heiko; Greul, Joerg Nico; Wachendorff-Neumann, Ulrike; Mauler-Machnik, Astrid; Dahmen, Peter; Kuck, Karl-Heinz; Loesel, Peter  
 PATENT ASSIGNEE(S): Bayer Cropscience AG, Germany  
 SOURCE: Ger. Offen., 70 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10258314	A1	20040624	DE 2002-10258314	20021213
WO 2004054982	A1	20040701	WO 2003-EP13498	20031201
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,			
TG	AU 2003298156	A1	20040709	AU 2003-298156
EP 1572663	A1	20050914	EP 2003-795860	20031201
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
BR 2003017290	A	20051108	BR 2003-17290	20031201
CN 1745067	A	20060308	CN 2003-80109571	20031201
JP 2006515841	T	20060608	JP 2004-559734	20031201
PRIORITY APPLN. INFO.:			DE 2002-10258314	A 20021213
			WO 2003-EP13498	W 20031201

OTHER SOURCE(S): MARPAT 141:54333  
 GI

L12 ANSWER 8 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



10544897

L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 07 Dec 2003

ACCESSION NUMBER: 2003:951013 HCAPLUS

DOCUMENT NUMBER: 140:5055

TITLE: Preparation of oxathiincarboxamides as agricultural fungicides

INVENTOR(S): Rieck, Heiko; Dunkel, Ralf; Elbe, Hans-ludwig; Wachendorff-Neumann, Ulrike; Mauler-Machnik, Astrid; Kuck, Karl-Heinz

PATENT ASSIGNEE(S): Bayer CropScience AG, Germany

SOURCE: PCT Int. Appl., 68 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

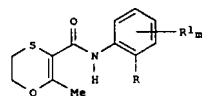
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003099804	A1	20031204	WO 2003-EP5103	20030515
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10222886	A1	20031211	DE 2002-10222886	20020523
IN 2003DE00680	A	20050311	IN 2003-DE680	20030508
AU 2003232775	A1	20031212	AU 2003-232775	20030515
EP 1509513	A	20050302	EP 2003-755101	20030515
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003011385	A	20050419	BR 2003-11385	20030515
JP 2005536469	T	20051202	JP 2004-507461	20030515
US 2005203171	A1	20050915	US 2005-515044	20050512
US 7119049	B2	20061010		
PRIORITY APPLN. INFO.:			DE 2002-10222886	A 20020523
			WO 2003-EP5103	W 20030515

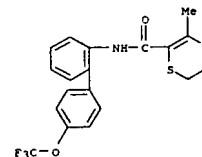
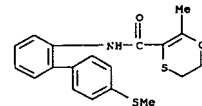
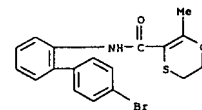
OTHER SOURCE(S): MARPAT 140:5055

GI



L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[4'-(trifluoromethoxy)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)

RN 627105-80-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[4'-(methylthio)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)RN 627105-81-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-bromo[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)RN 627105-82-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

AB Title compds. [I: R1 = F; m = 0-2; R = (substituted) Ph], were prepared Thus, a suspension of K2CO3 in MeCN was dropwise treated with 4'-chloro-2'-fluoro-1,1'-biphenyl-2-amine and 2-methyl-5,6-dihydro-1,4-oxathiin-3-carbonyl chloride followed by stirring for 10 h to give 39%

N-(4'-chloro-2'-fluoro-1,1'-biphen-2-yl)-2-methyl-5,6-dihydro-1,4-oxathiin-3-carboxamide. The latter at 100 g/ha gave 100% control of Venturia inaequalis.

IT 627105-77-5P 627105-78-6P 627105-79-7P  
627105-80-0P 627105-81-1P 627105-82-2P  
627105-83-3P 627105-84-4P 627105-85-5P  
627105-86-6P 627105-87-7P 627105-88-8P  
627105-89-9P 627105-90-2P 627105-91-3P  
627105-92-4P 627105-93-5P 627105-94-6P  
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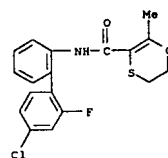
RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation);

USES

(Uses)  
(preparation of oxathiincarboxamides as agricultural fungicides)

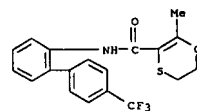
RN 627105-77-5 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(4'-chloro-2'-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



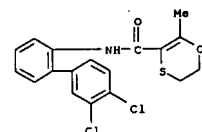
RN 627105-78-6 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)



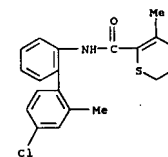
RN 627105-79-7 HCAPLUS

L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



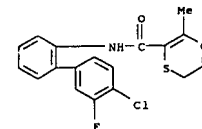
RN 627105-83-3 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(4'-chloro-3'-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 627105-84-4 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(4'-chloro-3'-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

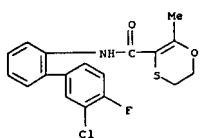


RN 627105-85-5 HCAPLUS

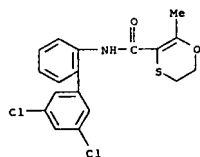
CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-4'-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

10544897

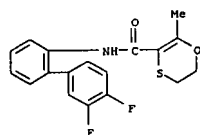
L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 627105-86-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3',5'-dichloro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

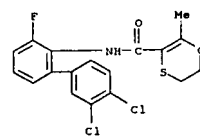


RN 627105-87-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-difluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

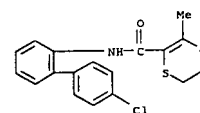


RN 627105-88-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-chloro-3'-(trifluoromethyl)[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

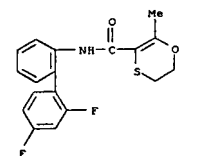
L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 627105-92-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-fluoro-4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

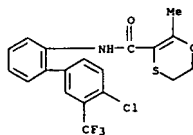


RN 627105-93-5 HCAPLUS  
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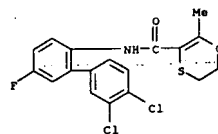


RN 627105-94-6 HCAPLUS  
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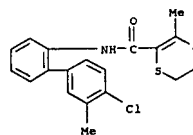
L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 627105-89-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro-5-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

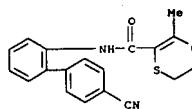


RN 627105-90-2 HCAPLUS  
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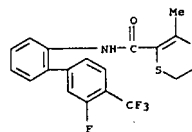


RN 627105-91-3 HCAPLUS  
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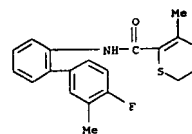
L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



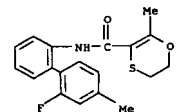
RN 627105-95-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3'-fluoro-4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 627105-96-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4'-fluoro-3'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



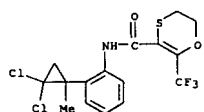
RN 627105-97-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2'-fluoro-4'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



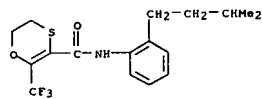
RN 627105-98-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3',5'-difluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

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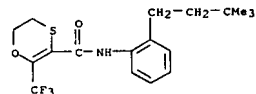
L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 746638-11-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[(2-(3-methylbutyl)phenyl)-2-(trifluoromethyl)]- (9CI) (CA INDEX NAME)



RN 746638-12-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[(2-(3,3-dimethylbutyl)phenyl)-5,6-dihydro-2-(trifluoromethyl)]- (9CI) (CA INDEX NAME)



L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 26 Aug 2004

ACCESSION NUMBER: 2004:695242 HCAPLUS

DOCUMENT NUMBER: 141:225519

TITLE: Preparation of oxathienylcarboxamides as microbicide agents.

INVENTOR(S): Dunkel, Ralf; Elbe, Hans-Ludwig; Rieck, Heiko; Graul, Joerg Nico; Wachendorff-Neumann, Ulrike; Dahnen, Peter; Kuch, Karl-Heinz

PATENT ASSIGNEE(S): Bayer CropScience A.-G., Germany

SOURCE: Ger. Offen., 40 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

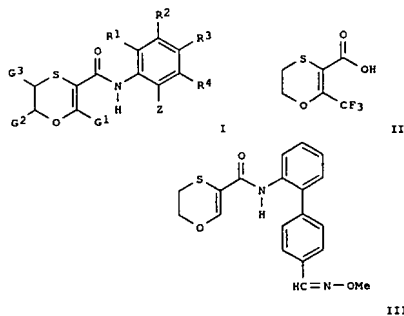
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10306244	A1	20040826	DE 2003-10306244	20030214
AU 2004212056	A1	20040826	AU 2004-212056	20040205
CA 2515922	A1	20040826	CA 2004-2515922	20040205
WO 2004072023	A2	20040826	WO 2004-EP1053	20040205
WO 2004072023	A3	20050407		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NG, NH, NO, NZ, OM, PA, PE, PG, PH, PK, PL, PT, RU, RW, SA, SC, SD, SE, SI, SK, SL, SM, SN, SR, ST, SV, SY, TD, TG, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VE, VI, VN, YU, ZA, ZM, ZW, ZY				
RW: BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1599460	A2	20051130	EP 2004-708349	20040205
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2004007254	A	20060131	BR 2004-7254	20040205
CN 1774432	A	20060517	CN 2004-80009974	20040205
JP 2006517555	T	20060727	JP 2006-501741	20040205
US 2007004793	A1	20070104	US 2006-544897	20060202
PRIORITY APPLN. INFO.:				
			DE 2003-10306244	A 20030214
			DE 2003-10321270	A 20030513
			WO 2004-EP1053	A 20040205

OTHER SOURCE(S): MARPAT 141:225519  
GI

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



AB Title compds. I [G1 = CF<sub>3</sub>, cyclopropyl; G2, G3 = H, CH<sub>3</sub>; R1, R2, R3, R4 = H, F, Cl, CH<sub>3</sub>; Z = Z1, Z2, Z3, Z4; Z1 = (un)substituted phenyl; Z2 = (un)substituted cycloalkyl, bicycloalkyl; Z3 = (un)substituted alkyl; Z4 = (un)substituted cycloalkyl, alkenyl, alkynyl, etc.] and their pharmaceutically acceptable salts were prepared. For example, coupling of 2'-aminobiphenyl-4-carbaldehyde-O-methyloxime and oxathienylcarboxylic acid II, e.g., prepared from

ethyl-2-chloro-3-keto-4,4,4-trifluorobutyrate in 3-steps, afforded oxathienylcarboxamide III in 21% yield. In venturia apple protection assays. 8-examples of compds. I exhibited 88% efficiency at 100 g/ha (sic) application.

IT 746624-50-0P 746624-51-1P 746624-52-2P  
746624-53-3P 746624-54-4P 746624-55-5P  
746624-56-6P 746624-57-7P 746624-58-8P  
746624-59-9P 746624-60-2P 746624-62-4P  
746624-63-5P 746624-64-6P 746624-65-7P  
746624-66-8P 746624-67-9P 746624-68-0P  
746624-69-1P 746624-70-4P 746624-71-5P  
746624-72-6P 746624-73-7P 746624-74-8P  
746624-75-9P 746624-76-0P 746624-77-1P  
746624-78-2P 746624-79-3P 746624-80-6P  
746624-81-7P 746624-82-8P 746624-83-9P  
746624-84-0P 746624-85-1P 746624-86-2P  
746624-87-3P 746624-88-4P 746624-89-5P  
746624-90-8P 746624-91-9P 746624-92-0P  
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746625-02-5P 746625-03-6P 746625-04-7P  
746625-05-8P 746625-06-9P 746625-07-0P  
746625-10-5P 746625-12-7P 746625-13-8P  
746625-14-9P 746625-15-0P 746625-16-1P  
746625-17-2P 746625-18-3P 746625-19-4P

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

746625-20-7P 746625-21-8P 746625-22-9P

746625-23-0P 746625-24-1P 746625-25-2P

746625-26-3P 746625-27-4P 746625-28-5P

746637-89-8P 746637-90-1P

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation);

USES

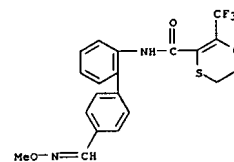
(Uses)

(prepn. of oxathienylcarboxamides as microbicide agents.)

RN 746624-50-0 HCAPLUS

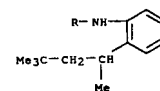
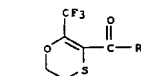
CN 1,4-Oxathiin-3-carboxamide,

5,6-dihydro-N-[(4'-((methoxyimino)methyl)[1,1'-biphenyl]-2-yl)]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 746624-51-1 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-[(1,3,3-trimethylbutyl)phenyl]- (9CI) (CA INDEX NAME)

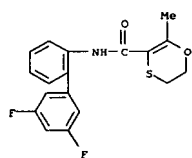


RN 746624-52-2 HCAPLUS

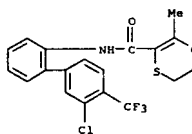
CN 1,4-Oxathiin-3-carboxamide,  
N-[(2-(1,3-dimethylbutyl)phenyl)-5,6-dihydro-5-methyl-2-(trifluoromethyl)]- (9CI) (CA INDEX NAME)

10544897

L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
 dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 627105-99-1 HCAPLUS  
 CN 1,4-Oxathin-3-carboxamide, N-[3'-chloro-4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



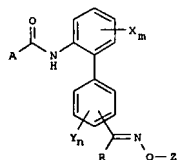
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
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L12 ANSWER 10 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 01 Feb 2002  
 ACCESSION NUMBER: 2002:90017 HCAPLUS  
 DOCUMENT NUMBER: 136:151158  
 TITLE: Preparation of N-biphenylcarboxamides as bactericides  
 INVENTOR(S): Elbe, Hans-Ludwig; Rieck, Heiko; Dunkel, Ralf; Wachendorff-Neumann, Ulrike; Mauler-Machnik, Astrid; Kuck, Karl-Heinz; Kugler, Martin; Jaetsch, Thomas  
 PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany  
 SOURCE: PCT Int. Appl., 164 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002008197	A1	20020131	WO 2001-EP7981	20010711
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 10122447	A1	20020418	DE 2001-10122447	20010509
EP 1305292	A1	20030502	EP 2001-956525	20010711
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001012676	A	20030624	BR 2001-12676	20010711
HU 200301661	A2	20030828	HU 2003-1661	20010711
JP 2004504383	T	20040212	JP 2002-514103	20010711
IN 2001MU00664	A	20050304	IN 2001-MU664	20010712
ZA 200300633	A	20040212	ZA 2003-633	20030123
US 2004039043	A1	20040226	US 2003-333598	20030506
US 7176228	B2	20070213		
PRIORITY APPLN. INFO.:			DE 2000-10035857	A 20000724
			DE 2001-10122447	A 20010509
			WO 2001-EP7981	W 20010711

OTHER SOURCE(S): MARPAT 136:151158  
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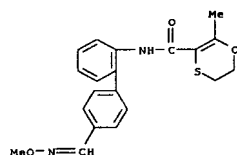
L12 ANSWER 10 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



AB Title compds. [I: R = H, (halo)alkyl, cycloalkyl; Z = H, (halo)alkyl; X, Y = halo, NO2, cyano, OH, CO2H, cycloalkyl, alkoxy, alkylthio, alkenyloxy, alkynyl, alkyldisulfonyl, alkyldisulfinyl; m = 0-3; n = 0-4; A = (substituted) 1H-pyrazol-4-yl, 2- or 3-thienyl, Ph, 3-pyridinyl, 3-pyranyl, 1,4-oxathin-3-yl, 2- or 3-thiopyran-3-yl, 3-pyrrolyl, 3- or 2-furanyl, 5- or 4-thiazolyl, 4-isothiazolyl, 5-isoxazolyl, 2-pyrazinyl], were prepared. Thus, a mixture of 2-(4-methoxyiminomethylphenyl)benzenamine (preparation given) and Et3N in PhMe was stirred with 2-methyl-4-trifluoromethylthiazole-5-carbonyl chloride at room temperature followed by stirring for 2 h at 50° to give 74% N-[2-(4-methoxyiminomethylphenyl)phenyl]-2-methyl-4-trifluoromethylthiazole-5-carboxamide. Several I at 100 ppm gave 77-100% control of Podosphaera leucotricha on apple.

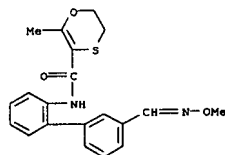
IT 393821-35-7P 393821-47-1P  
 RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation);  
 USES (Uses)

RN 393821-35-7 HCAPLUS  
 CN 1,4-Oxathin-3-carboxamide, 5,6-dihydro-N-[4'-[(methoxyimino)methyl][1,1'-biphenyl]-2-yl]-2-methyl- (9CI) (CA INDEX NAME)



RN 393821-47-1 HCAPLUS  
 CN 1,4-Oxathin-3-carboxamide, 5,6-dihydro-N-[3'-[(methoxyimino)methyl][1,1'-biphenyl]-2-yl]-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 10 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
 biphenyl]-2-yl]-2-methyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
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L12 ANSWER 11 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN

ED Entered STN: 31 Oct 2001

ACCESSION NUMBER: 2001:788425 HCAPLUS

DOCUMENT NUMBER: 137:33267

TITLE: Synthesis of trifluoromethylated dihydro-1,4-oxathiincarboxanilides and their fungicidal activity

AUTHOR(S): Hahn, Moh-Gyu; Nam, Kee Dal; Kim, Jin-Cheol; Cho, Kwang Yun

CORPORATE SOURCE: Organic Chemistry Lab, Korea Institute of Science and Technology, Seoul, 136-791, S. Korea

SOURCE: Han'guk Nonghwa Hakhoechi (2001), 44(3), 191-196

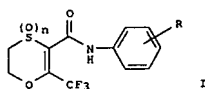
PUBLISHER: CODEN: JKACAT; ISSN: 0368-2697

DOCUMENT TYPE: Korean Society of Agricultural Chemistry and Biotechnology

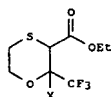
LANGUAGE: English

OTHER SOURCE(S): CASREACT 137:33267

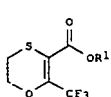
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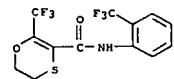
II



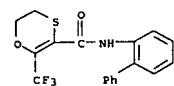
III

AB  $\alpha,\beta$ -Unsaturated carboxanilides with trifluoromethylated dihydro-1,4-oxathiins (I;  $n = 0, 1$ ;  $R = H, 4-Me, 2, 3$ , or  $4-OMe, -Cl$ , or  $-F, 3$  or  $4-NO_2, 4-Br, 2-CF_3, 2-Ph$ , etc.) were synthesized for the development of new agrochem. fungicides. Chlorination of trifluoromethylated  $\beta$ -keto ester, i.e.  $CF_3COCH_2CO_2Et$ , followed by the reaction with 1,2-mercaptoethanol gave intermediate 1,4-oxathiane (II;  $X = OH$ ). Without purification of II ( $X = OH$ ), substitution of hydroxy group by chlorine, followed by dehydrochlorination of II ( $X = Cl$ ) in the presence of triethylamine afforded trifluoromethylated dihydro-1,4-oxathiin ester (III;  $R_1 = Et$ ). Chlorination of the hydroxy group of the carboxylic acid III ( $R_1 = H$ ) followed by N-acylation of various amines gave the corresponding trifluoromethylated dihydro-1,4-oxathiin carboxamides I. Antifungal screening (in vivo) of the synthesized compds. against typical plant diseases, which include rice blast, rice sheath blight, cucumber gray mold, tomato late blight, wheat leaf rust, and barley powdery mildew,

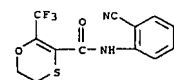
L12 ANSWER 11 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN (Continued)  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-(2-(trifluoromethyl)phenyl)- (9CI) (CA INDEX NAME)



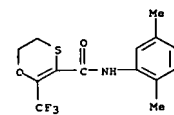
RN 437714-39-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(1,1'-biphenyl)-2-yl-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 437714-41-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-cyanophenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 437714-47-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,5-dimethylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 437714-48-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 11 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN (Continued)  
was carried out. Where meta position of the Ph group was substituted

with isopropoxy or iso-Pr group, excellent antifungal activities against rice sheath blight and wheat leaf rust were detected.

IT 220288-82-4P, N-(2-Methylphenyl)-2-trifluoromethyl-5,6-dihydro-1,4-oxathiin-3-carboxamide 220288-85-7P, N-(2,4,6-Trimethylphenyl)-2-trifluoromethyl-5,6-dihydro-1,4-oxathiin-3-carboxamide 437714-38-0P, N-(2-Trifluoromethylphenyl)-2-trifluoromethyl-5,6-dihydro-1,4-oxathiin-3-carboxamide 437714-39-1P, N-(2-Phenylphenyl)-2-trifluoromethyl-5,6-dihydro-1,4-oxathiin-3-carboxamide 437714-41-5P, N-(2-Cyanophenyl)-2-trifluoromethyl-5,6-dihydro-1,4-oxathiin-3-carboxamide 437714-47-1P, N-(2,5-Dimethylphenyl)-2-trifluoromethyl-5,6-dihydro-1,4-oxathiin-3-carboxamide 437714-48-2P, N-(2,4-Dimethylphenyl)-2-trifluoromethyl-5,6-dihydro-1,4-oxathiin-3-carboxamide 437714-50-6P, N-(3-Chloro-6-methylphenyl)-2-trifluoromethyl-5,6-dihydro-1,4-oxathiin-3-carboxamide 437714-52-8P, N-(2,6-Diethylphenyl)-2-trifluoromethyl-5,6-dihydro-1,4-oxathiin-3-carboxamide 437714-65-3P, N-(2-Chloro-6-methylphenyl)-2-trifluoromethyl-5,6-dihydro-1,4-oxathiin-3-carboxamide 437714-68-6P, N-(2-Ethylphenyl)-2-trifluoromethyl-5,6-dihydro-1,4-oxathiin-3-carboxamide 437714-69-7P, N-(2-Isopropylphenyl)-2-trifluoromethyl-5,6-dihydro-1,4-oxathiin-3-carboxamide

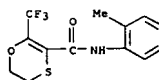
RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation);

USES

(Uses)  
(Preparation of trifluoromethyl-dihydro-1,4-oxathiincarboxanilides as agrochem. fungicides)

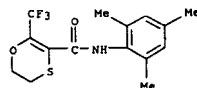
RN 220288-82-4 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(2-methylphenyl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



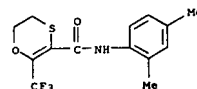
RN 220288-85-7 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)



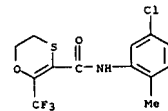
RN 437714-38-0 HCAPLUS

L12 ANSWER 11 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN (Continued)



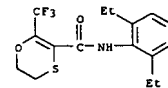
RN 437714-50-6 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(5-chloro-2-methylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



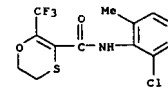
RN 437714-52-8 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2,6-diethylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 437714-65-3 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2-chloro-6-methylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

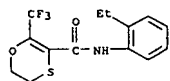


RN 437714-68-6 HCAPLUS

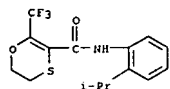
CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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L12 ANSWER 11 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



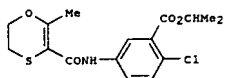
RN 437714-69-7 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-(1-methylethyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

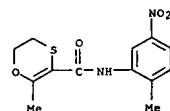
L12 ANSWER 12 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 21 Jan 2001  
 ACCESSION NUMBER: 2001:51606 HCAPLUS  
 DOCUMENT NUMBER: 134:280789  
 TITLE: Synthesis of 1-methylethyl  
 2-chloro-5-[[[5,6-dihydro-2-methyl-1,4-oxathiin-3-yl]carbonyl]amino]benzoate analogs and their antiviral activity  
 AUTHOR(S): Xiaoshen, Ji; Yulun, Wang; Huafeng, Zhang; Yan, Gao; Zhenye, Liu; Jiankang, Wang  
 CORPORATE SOURCE: Department of Clinical Pharmacology, General Hospital of Air Force, Beijing, 100036, Peop. Rep. China  
 SOURCE: Journal of Chinese Pharmaceutical Sciences (2000), 9(4), 179-181  
 CODEN: JCHSE4; ISSN: 1003-1057  
 PUBLISHER: Beijing Medical University, School of Pharmaceutical Sciences  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 134:280789  
 GI



AB 1-Methylethyl 2-chloro-5-[[[5,6-dihydro-2-methyl-1,4-oxathiin-3-yl]carbonyl]amino]benzoate (I, UC84) has strong antiviral activity. UC84 was taken as the leading compound, and 11 analogs were synthesized. All these compds. were evaluated, and some of them showed the obvious anti-HBV and anti-HSV activities. The results indicated that the analogs of UC84 might be the potential anti-HSV and anti-HBV drugs.  
 IT 331809-62-2P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (preparation of 1-methylethyl 2-chloro-5-[[[5,6-dihydro-2-methyl-1,4-oxathiin-3-yl]carbonyl]amino]benzoate analogs and their antiviral activity)  
 RN 331809-62-2 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methyl-5-nitrophenyl)- (9CI) (CA INDEX NAME)

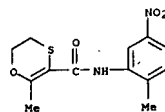
L12 ANSWER 12 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L12 ANSWER 13 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 25 Oct 2000  
 ACCESSION NUMBER: 2000:750704 HCAPLUS  
 DOCUMENT NUMBER: 134:266254  
 TITLE: Preparation of UC84 derivatives  
 AUTHOR(S): Ji, Xiaoshen; Jin, Tao; Miao, Yi; Liu, Yan; Liu, Zhenye; Zhang, Huafeng  
 CORPORATE SOURCE: Department of Clinical Pharmacology, The General Hospital of Air Force, Beijing, 100036, Peop. Rep. China  
 SOURCE: Zhongguo Yaowu Huaxue Zazhi (2000), 10(3), 181-183  
 CODEN: ZYHZEJ; ISSN: 1005-0108  
 PUBLISHER: Zhongguo Yaowu Huaxue Zazhi Bianjibub  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Chinese  
 AB 1-Methylethyl 2-chloro-5-[[[5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxamido]benzoate (UC84) and its analogs were prepared. Some of the synthetic compds. showed obvious anti-HSV and anti-HBV activities.  
 IT 331809-62-2P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and effect of UC84 derivs.)  
 RN 331809-62-2 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methyl-5-nitrophenyl)- (9CI) (CA INDEX NAME)



10544897

L12 ANSWER 14 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN

ED Entered STN: 20 Apr 1999

ACCESSION NUMBER: 1999:241387 HCAPLUS

DOCUMENT NUMBER: 130:338072

TITLE: Formation of bicyclic  $\beta$ -lactams from dichloro-1,4-oxathiane-3-carboxanilides: nucleophilic substitution of nitrogen on anomeric carbon

AUTHOR(S): Hahn, Hoh-Gyu; Chang, Kee-Hyuk

CORPORATE SOURCE: Organic Chemistry Lab, Korea Institute of Science and Technology, Seoul, 136-791, S. Korea

SOURCE: Heterocycles (1998), 50(2), 713-719

PUBLISHER: CODEN: HETCYAM; ISSN: 0385-5414

DOCUMENT TYPE: Japan Institute of Heterocyclic Chemistry

LANGUAGE: English

OTHER SOURCE(S): CASREACT 130:338072

AB Transformation of dichloro-1,4-oxathianecarboxanilides(I) to bicyclic  $\beta$ -lactams is described. In the presence of sodium hydride, an intramolecular nucleophilic substitution of nitrogen to anomeric carbon of I gave (1R\*,6R\*)-1-chloro-6-methyl-7-phenyl-5-oxa-2-thia-7-azabicyclo[4.2.0]octan-8-ones. The reason for facile displacement at C-2 is attributable to neighboring group participation of sulfur and C-2 is anomeric. Plausible mechanisms for the formation of 2-chloromethyl-5,6-dihydro-N-phenyl-1,4-oxathiin-3-carboxamide under the neutral conditions, or 2,3-dihydroxy-2-methyl-N-phenyl-1,4-oxathiane-3-carboxamide in aqueous solution, or bicyclic  $\beta$ -lactam in the presence of sodium hydride were proposed.

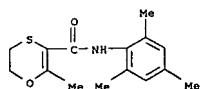
IT 21554-33-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(formation of bicyclic  $\beta$ -lactams from dichloro-1,4-oxathiane-3-carboxanilides by nucleophilic substitution of nitrogen on anomeric carbon)

RN 21554-33-6 HCAPLUS

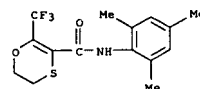
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

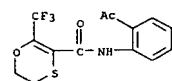
FORMAT

L12 ANSWER 15 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN (Continued)



RN 220288-89-1 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2-acetylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L12 ANSWER 15 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN

ED Entered STN: 08 Jan 1999

ACCESSION NUMBER: 1999:11372 HCAPLUS

DOCUMENT NUMBER: 130:153621

TITLE: Synthesis of trifluoromethylated dihydro-1,4-oxathiin-3-carboxanilides through polymer-bound activated ester

AUTHOR(S): Hahn, Hoh-Gyu; Kee, Hyuk Chang; Kee, Dal Nam; Bae, Su Yeoul; Mah, Heduck

CORPORATE SOURCE: Organic Chemistry Lab, Korea Institute of Science and Technology, Seoul, 136-791, S. Korea

SOURCE: Heterocycles (1998), 48(11), 2253-2261

PUBLISHER: CODEN: HETCYAM; ISSN: 0385-5414

DOCUMENT TYPE: Japan Institute of Heterocyclic Chemistry

LANGUAGE: English

OTHER SOURCE(S): CASREACT 130:153621

AB A synthesis of new trifluoromethylated dihydro-1,4-oxathiin-3-carboxanilides through polymer-bound activated ester is described. Chlorination of Et y,y,y-trifluoroacetate followed by treatment of 2-mercaptoethanol gave hydroxyoxathiane isomers. Replacement of hydroxy by aniline and then dehydrochlorination afforded trifluoromethyl dihydro-1,4-oxathiin ester. The polymer-bound trifluoromethylated dihydro-1,4-oxathiin-3-carboxylic acid, 4-hydroxy-3-nitrobenzophenone ester was prepared through the reaction of polystyrene-bound 4-hydroxy-3-nitrobenzophenone with the trifluoromethylated dihydro-1,4-oxathiin-3-carboxylic chloride. Refluxing of this ester with anilines in acetonitrile gave the title carboxanilides.

The reaction rate depended on the nucleophilicity of nitrogen in aniline.

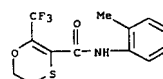
IT 220288-82-4P 220288-85-7P 220288-89-1P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of trifluoromethylated dihydro-1,4-oxathiin-3-carboxanilides from polymer-bound activated ester)

RN 220288-82-4 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(2-methylphenyl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 220288-85-7 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 16 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN

ED Entered STN: 04 Nov 1998

ACCESSION NUMBER: 1998:699952 HCAPLUS

DOCUMENT NUMBER: 130:38037

TITLE: Anchimeric assistance in the rearrangement of dichloro-3-methyl-1,4-oxathianes to 2-chloromethyl dihydro-1,4-oxathiins

AUTHOR(S): Hahn, Hoh-Gyu; Choi, Joong-Kwon; Nam, Kee Dal

CORPORATE SOURCE: Org. Chem. Lab, Korea Institute of Science and Technology, Seoul, 136-791, S. Korea

SOURCE: Bulletin of the Korean Chemical Society (1998), 19(10), 1109-1112

PUBLISHER: CODEN: BKCSDE; ISSN: 0253-2964

DOCUMENT TYPE: Korean Chemical Society

LANGUAGE: English

GI

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB Anchimeric assistance of anilide in the rearrangement of dichloro-1,4-oxathianes I (R = OMe, NHPh, NHC6H4COMe-2, NHC6H4COMe-4, NHC6H4OMe-2, NHC6H4OMe-4, NHC6H4NO2-2, NHC6H4NO2-4) to 2-chloromethyl dihydro-1,4-oxathiins II is described. The inductive effect of the carbonyl group in I was negligible in the rearrangement. The rate of the rearrangement of I to II depended on the basicity of the anilide nitrogen.

Hydrogen bonding between the anilide hydrogen and ortho-substituents in I (R = NHC6H4COMe-2, NHC6H4OMe-2, NHC6H4NO2-2) decrease the basicity of the anilide nitrogen and the rate of rearrangement of I to II.

IT 216690-65-2P

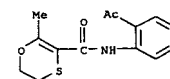
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of methyl dichlorooxathianecarboxylates and carboxamides)

and anchimeric assistance in their rearrangement to chloromethyloxathiins

RN 216690-65-2 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2-acetylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

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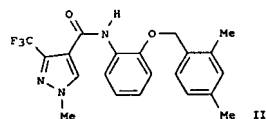
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L12 ANSWER 16 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

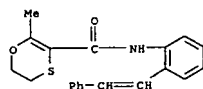
L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 11 Feb 1998  
 ACCESSION NUMBER: 1998:79728 HCAPLUS  
 DOCUMENT NUMBER: 128:140699  
 TITLE: Preparation of pyrazole-4-carboxanilides and analogs as agrochemical microbicides and pesticides  
 INVENTOR(S): Elbe, Hans-Ludwig; Krueger, Bernd-Wieland; Markert, Robert; Tiemann, Ralf; Kuhn, Dietmar; Dutzmann, Stefan; Stenzel, Klaus; Erdelen, Christoph; Kugler, Martin; Buschhaus, Hans-Ulrich  
 PATENT ASSIGNEE(S): Bayer A.-G., Germany  
 SOURCE: Ger. Offen., 72 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19629828	A1	19980129	DE 1996-19629828	19960724
WO 9803500	A1	19980129	WO 1997-EP1694	19970711
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TH, TR, TT, UA, UG, US, UZ, VN, RW: GH, KE, LS, MW, SD, SE, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, CA, CN, ML, MR, NE, SN, TD, TG				
AU 9734441	A	19980210	AU 1997-34441	19970711
EP 915868	A1	19990519	EP 1997-930522	19970711
EP 915868	B1	20041208		
R: BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, PT				
BR 9710400	A	19990817	BR 1997-10400	19970711
CN 1226244	A2	19990818	CN 1997-196717	19970711
HU 9903691	A2	20000428	HU 1999-3691	19970711
JP 2000516917	T	20001219	JP 1998-506506	19970711
RU 2194704	C2	20021220	RU 1999-104181	19970711
EP 1443045	A1	20040804	EP 2004-9928	19970711
R: BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, PT				
PT 915868	T	20050531	PT 1997-930522	19970711
ES 2232872	T3	20050601	ES 1997-930522	19970711
US 6319940	B1	20011120	US 1999-230162	19990120
US 6534532	B1	20030318	US 2001-955783	20010918
US 2003078287	A1	20030424	US 2002-158602	20020530
US 6716881	B2	20040406		
PRIORITY APPL. INFO.:				
			DE 1996-19629828	A 19960724
			EP 1997-930522	A3 19970711
			WO 1997-EP1694	W 19970711
			US 1999-230162	A3 19990120
			US 2001-955783	A3 20010918
OTHER SOURCE(S): CASREACT 128:140699; MARPAT 128:140699				

L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

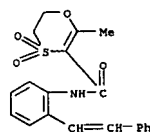


AB RIC(X)NH212R [I: R = (un)substituted (hetero)aryl; R1 = (hetero)aryl; X = O or S; Z = alk(enylene, CO, OCH2, CH2O, CH(OH), etc.; Z1 = (un)substituted 1,2-phenylene] were prepared. Thus, 1-methyl-3-trifluoromethylpyrazole-4-carbonyl chloride was amidated by 2-(H2N)C6H4OH and the product etherified by 2,4-Me2C6H3CH2Cl to give title compound II.  
 IT Data for biol. activity of I were given.  
 202398-63-8P 202398-64-9P 202398-65-0P  
 202399-02-8P 202399-06-2P 202399-11-9P  
 202399-23-3P 202399-31-3P 202399-56-2P  
 202399-63-1P 202399-80-2P 202399-88-0P  
 202399-90-4P 202399-92-6P 202399-93-7P  
 202400-72-4P 202400-73-5P 202400-74-6P  
 202400-83-7P 202400-85-9P  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of pyrazole-4-carboxanilides and analogs as agrochem. microbicides and pesticides)  
 RN 202398-63-8 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)

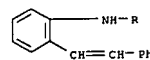
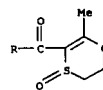


RN 202398-64-9 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(2-phenylethenyl)phenyl]-, 4,4-dioxide (9CI) (CA INDEX NAME)

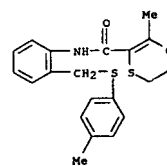
L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 202398-65-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(2-phenylethenyl)phenyl]-, 4-oxide (9CI) (CA INDEX NAME)



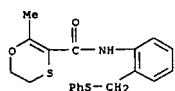
RN 202399-02-8 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[(4-methylphenyl)thio]methyl]phenyl]- (9CI) (CA INDEX NAME)



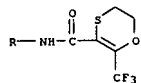
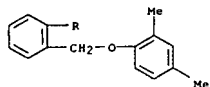
RN 202399-06-2 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[(phenylthio)methyl]phenyl]- (9CI) (CA INDEX NAME)

10544897

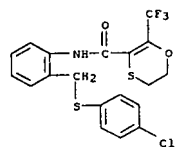
L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 202399-11-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
N-[2-[(2,4-dimethylphenoxy)methyl]phenyl]-5,6-  
dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

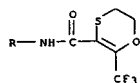
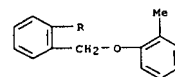


RN 202399-23-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide,  
N-[2-[(4-chlorophenyl)thio]methyl]phenyl]-5,6-  
dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

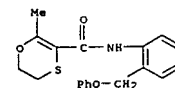


RN 202399-31-3 HCAPLUS  
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N-[2-[(4-chlorophenyl)thio]methyl]phenyl]-5,6-  
dihydro-2-methyl- (9CI) (CA INDEX NAME)

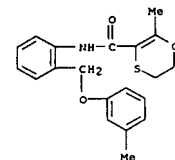
L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 202399-88-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[(4-chlorophenyl)thio]methyl]phenyl]- (9CI) (CA INDEX NAME)

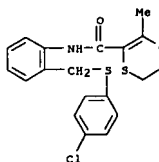


RN 202399-90-4 HCAPLUS  
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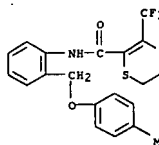


RN 202399-92-6 HCAPLUS  
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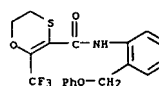
L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 202399-56-2 HCAPLUS  
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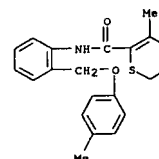


RN 202399-63-1 HCAPLUS  
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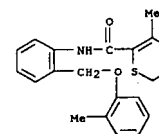


RN 202399-80-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-[(4-chlorophenyl)thio]methyl]phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

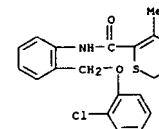
L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 202399-93-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[(4-chlorophenyl)thio]methyl]phenyl]- (9CI) (CA INDEX NAME)



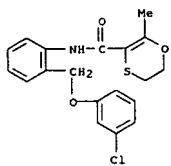
RN 202400-72-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-[(4-chlorophenyl)thio]methyl]phenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



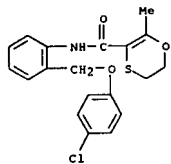
RN 202400-73-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-[(4-chlorophenyl)thio]methyl]phenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

10544897

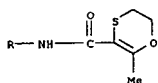
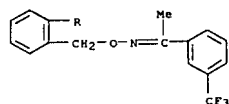
L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 202400-74-6 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[2-[(4-chlorophenoxy)methyl]phenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 202400-83-7 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[[[1-(3-(trifluoromethyl)phenyl)ethylidene]amino]oxy]methyl]phenyl]- (9CI) (CA INDEX NAME)



L12 ANSWER 18 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 10 Jan 1998

ACCESSION NUMBER: 1998:13933 HCAPLUS

DOCUMENT NUMBER: 128:75193

TITLE: Preparation of aminophthalic acid derivatives as pesticides.

INVENTOR(S): Elbe, Hans-Ludwig; Duttmann, Stefan; Stenzel, Klaus

PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 110 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

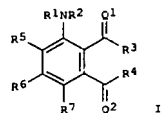
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9747589	A1	19971218	WO 1997-EP2845	19970602
W: AU, BB, BG, BR, BY, CA, CN, CZ, HU, IL, JP, KR, KZ, LK, MX, NO, NZ, PL, RO, RU, SK, TR, UA, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
DE 19623744	A1	19971218	DE 1996-19623744	19960614
AU 9730936	A	19980107	AU 1997-30936	19970602
PRIORITY APPLN. INFO.:			DE 1996-19623744	A 19960614
			WO 1997-EP2845	W 19970602

OTHER SOURCE(S):

CASREACT 128:75193; MARPAT 128:75193

GI



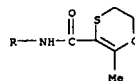
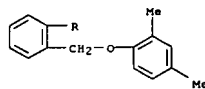
AB Use of title compds. [I; Q1, Q2 = O, S; R1 = H, R1CO; R2 = R8R9NCO, R10OCO, R11CO, R12SO2; R8 = H, alkyl, cycloalkyl, (substituted) aryl, heteroaryl; R9 = H, alkyl; R8R9N = (substituted) heterocyclyl; R10 = (substituted) alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclyl; R11 = H, (substituted) alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, aralkyl, heterocyclyl; R12 = alkyl, aryl, heterocyclyl; R1R2 = CR13R14; R1R2N = (substituted) heterocyclyl; R13 = H, alkyl, alkenyl, cycloalkyl, (substituted) aryl, heterocyclyl; R14 = H, alkyl, alkenyl, cycloalkyl, cycloalkenyl, aryl, heterocyclyl, alkoxy, dialkylamino; R13R14 = cycloalkylidene; R3, R4 = OH, alkoxy, alkenyloxy, alkynyloxy, aralkoxy, cycloalkoxy, cycloalkenyloxy, aryloxy, heterocyclyloxy, aralkylthio, SH, arylthio, amino, etc.; R5-R7 = H, halo, cyano, NO2, alkyl, alkoxy, alkylthio, haloalkyl, haloalkoxy, haloalkylthio] for combating pests is claimed. Thus, 3-nitrophthalic anhydride was heated with BuOH to give 88.1% 3-nitrophthalic acid 2-Bu ester. The latter was refluxed with DMF di-Me acetal in PhMe to give 92% 3-nitrophthalic acid 1-Me ester 2-Bu ester. This in H2O/THF was treated with Zn and HCl to give 82.4% 3-aminophthalic acid 1-Me ester 2-Bu ester. I at 100 ppm gave 82-98%

L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 202400-85-9 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide,

N-[2-[(2,4-dimethylphenoxy)methyl]phenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



L12 ANSWER 18 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

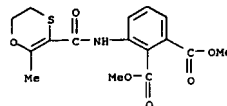
control of Botrytis cinerea on beans.

IT 200710-35-6P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of aminophthalic acid derivs. as pesticides)

RN 200710-35-6 HCAPLUS

CN 1,2-Benzenedicarboxylic acid, 3-[[[5,6-dihydro-2-methyl-1,4-oxathiin-3-yl]carbonyl]amino]-, dimethyl ester (9CI) (CA INDEX NAME)



10544897

L12 ANSWER 19 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
ED Entered STN: 17 May 1995

ACCESSION NUMBER: 1995:556534 HCAPLUS  
DOCUMENT NUMBER: 122:305888

TITLE: Oxathiin carboxanilide derivatives: a class of nonnucleoside HIV-1-specific reverse transcriptase inhibitors (NNRTIs) that are active against mutant HIV-1 strains resistant to other NNRTIs  
Balzarini, J.; Jonckheere, H.; Harrison, W. A.; Dao, D. C.; Anne, J.; De Clercq, E.; Karlsson, A.  
Rega Institute Medical Research, Leuven, 3000, Belg.  
Antiviral Chemistry & Chemotherapy (1995), 6(3), 169-78  
CODEN: ACCHEH; ISSN: 0956-3202

PUBLISHER: Blackwell  
DOCUMENT TYPE: Journal

LANGUAGE: English

AB The HIV-1-specific oxathiin carboxanilide derivative 1-methylethyl 2-chloro-5-[[[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]amino]benzene (NSC 615985) (designated UC84) has potent activity against HIV-1 (IIIB) (50% effective concentration: 0.015 µg mL<sup>-1</sup>).

UC84 was found to select for a 138-Lys mutant virus strain in HIV-1-infected CEM cell cultures. When the 138-Lys mutation was introduced solely in the p51 subunit of the p51/p66 reverse transcriptase (RT) heterodimer by site-directed mutagenesis, the enzyme proved 10-fold more resistant to UC84 than when the amino acid mutation was introduced solely in the p66 subunit of the p51/p66 RT heterodimer. These data provided clear evidence for a structural and functional role of the p51 subunit in the sensitivity/resistance of the enzyme to UC84. UC84 also proved to be virtually inactive against mutant HIV-1 strains containing

the 100-Ile, 106-Ala, 138-Lys or 181-Cys mutation in their RT. However,

minor structural changes in the mol., such as replacement of the oxygen of the amide moiety by sulfur, or the iso-Pr ester moiety by cyclopentyl or a sec-Bu, or the Me group of the oxathiin part by Et, made the compound markedly more inhibitory to one or several HIV-1 mutant strains. For example, compound 131 (1-methylethyl

2-chloro-5-[[[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)thioxomethyl]amino]benzoate was only 2-fold more active than the parent compound UC84 against wild-type HIV-1, but 30- to 100-fold more

inhibitory to HIV-1 mutant strains that contained the 100-Ile, 106-Ala, 138-Lys or 181-Cys in their RT. These findings should be taken into account when selecting suitable drug candidates for the treatment of

HIV-1 infections, particularly those that have developed resistance to other non-nucleoside RT inhibitors (NNRTIs).

IT 135012-64-59  
RL: BAC (Biological activity or effector, except adverse); BSU

(Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(oxathiin carboxanilides: HIV-1-specific reverse transcriptase

L12 ANSWER 20 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 16 Oct 1993

ACCESSION NUMBER: 1993:560132 HCAPLUS

DOCUMENT NUMBER: 119:160132

TITLE: Anilide derivatives and their use to combat Botrytis

INVENTOR(S): Eicken, Karl; Goetz, Norbert; Harreus, Albrecht; Ammermann, Eberhard; Lorenz, Gisela; Rang, Harald

PATENT ASSIGNEE(S): BASF A.-G., Germany

SOURCE: Eur. Pat. Appl., 60 pp.

CODEN: EPXKDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 545099	A2	19930609	EP 1992-119105	19921107
EP 545099	A3	19931124		
EP 545099	B1	19970305		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE				
CA 2081935	A1	19930523	CA 1992-2081935	19921102
CA 2081935	C	20040525		
IL 103614	A	19980924	IL 1992-103614	19921102
AT 149487	T	19970315	AT 1992-119105	19921107
ES 2096421	T3	19970501	ES 1992-119105	19921107
US 5330995	A	19940719	US 1992-973976	19921109
JP 05221994	A	19930831	JP 1992-303337	19921113
JP 3202079	B2	20010827		
AU 9228554	A	19930527	AU 1992-28554	19921120
AU 656243	B2	19950127		
HU 62861	A2	19930628	HU 1992-3653	19921120
HU 213622	B	19970828		
ZA 9208977	A	19940519	ZA 1992-8977	19921120
PL 171304	B1	19970328	PL 1992-296677	19921120
SK 281730	B6	20010710	SK 1992-3448	19921120
CZ 289478	B6	20020116	CZ 1992-3448	19921120
US 5480897	A	19960102	US 1994-215463	19940321
US 5556988	A	19960917	US 1995-472927	19950607
US 5589493	A	19961211	US 1995-476681	19950607
JP 2002253802	A	20010918	JP 2001-85276	20010323
JP 3657523	B2	20050608		
JP 2001316210	A	20011113	JP 2001-85342	20010323
JP 3660890	B2	20050615		

PRIORITY APPLN. INFO.:

DE 1991-413837	A	19911122
DE 1992-4204764	A	19920218
DE 1992-4204766	A	19920218
DE 1992-4204767	A	19920218
DE 1992-4204768	A	19920218
US 1992-973976	A3	19921109
JP 1992-303337	A3	19921113
US 1994-215463	A3	19940321

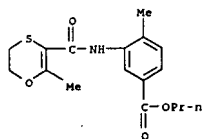
OTHER SOURCE(S): MARPAT 119:160132

L12 ANSWER 19 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
inhibition and prepn.)

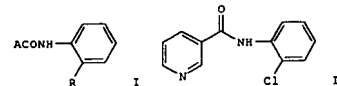
RN 135812-64-5 HCAPLUS

CN Benzoic acid,

3-[[[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]amino]-4-methyl-, propyl ester (9CI) (CA INDEX NAME)



L12 ANSWER 20 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
GI



AB The use of the title compds. I (A = heteroaryl; R = haloalkyl, halo, alkenyl, alkoxy, etc.) for the inhibition of Botrytis is claimed. Treatment of N-propylaniline with 2-chloronicotinoyl chloride gave N-(2-chlorophenyl)-3-pyridinamide (II). II had fungicidal activity against Botrytis cinerea.

IT 149708-39-4P 149708-40-7P 149708-42-9P

149708-43-0P 149708-44-1P 149708-45-2P

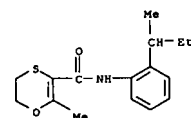
149708-71-4P 149708-72-5P 149708-74-7P

149708-75-8P 149708-76-9P 149708-77-0P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of, as agrochem. fungicide)

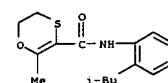
RN 149708-39-4 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(1-methylpropyl)phenyl]- (9CI) (CA INDEX NAME)



RN 149708-40-7 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(2-methylpropyl)phenyl]- (9CI) (CA INDEX NAME)

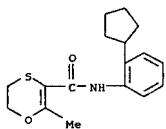


RN 149708-42-9 HCAPLUS

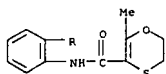
CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclopentylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

10544897

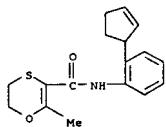
L12 ANSWER 20 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 149708-43-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclohexylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

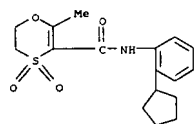


RN 149708-44-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-(2-cyclopenten-1-yl)phenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

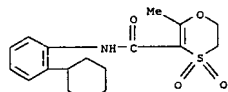


RN 149708-45-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-(2-cyclohexen-1-yl)phenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

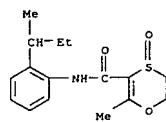
L12 ANSWER 20 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



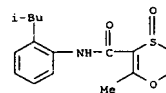
RN 149708-75-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclohexylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



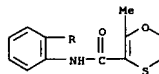
RN 149708-76-9 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(1-methylpropyl)phenyl]-, 4-oxide (9CI) (CA INDEX NAME)



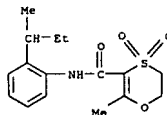
RN 149708-77-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(2-methylpropyl)phenyl]-, 4-oxide (9CI) (CA INDEX NAME)



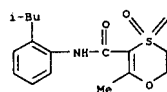
L12 ANSWER 20 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 149708-71-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(1-methylpropyl)phenyl]-, 4,4-dioxide (9CI) (CA INDEX NAME)



RN 149708-72-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(2-methylpropyl)phenyl]-, 4,4-dioxide (9CI) (CA INDEX NAME)



RN 149708-74-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclopentylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 21 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 23 Sep 1991

ACCESSION NUMBER: 1991:514520 HCAPLUS

DOCUMENT NUMBER: 115:114520

TITLE: Treatment of HIV infections and compounds useful thereon

INVENTOR(S): Harrison, William A.; Jewell, Gary E.; Pelauer, Ethel E.; Dekeyser, Mark A.; Cong, Dong D.; McGuiness, James

A.; Mishra, Anupama; Brouwer, Walter G.; McPhee, Derek

PATENT ASSIGNEE(S): J. Uniroyal Chemical Ltd., Can.; Uniroyal Chemical Co., Inc.

SOURCE: PCT Int. Appl., 187 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

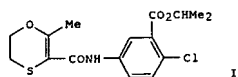
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9105761	A1	19910502	WO 1990-US5760	19901009
W: AU, BR, CA, FI, HU, JP, KR, NO, SU				
WM: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
US 5269389	A	19931207	US 1990-588208	19900926
CA 2067381	A1	19910417	CA 1990-2067381	19901009
CA 2067381	C	20040406		
AU 9066035	A	19910516	AU 1990-66035	19901009
AU 636409	B2	19930429		
ZA 9008094	A	19910828	ZA 1990-8094	19901009
BR 9007758	A	19920811	BR 1990-7758	19901009
EP 497816	A1	19920812	EP 1990-915588	19901009
EP 497816	B1	19950517		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
HU 60713	A2	19921028	HU 1992-1258	19901009
HU 220759	B1	20020528		
JP 04507422	T	19921224	JP 1990-514569	19901009
JP 06102641	B	19941214		
RU 2108785	C1	19980420	RU 1990-5011885	19901009
IL 95956	A	19960331	IL 1990-95956	19901010
CN 1051036	A	19910501	CN 1990-108426	19901016
US 5693827	A	19971202	US 1995-485291	19950607
PRIORITY APPLN. INFO.:			US 1989-421155	A 19891016
			US 1990-567582	A 19900815
			US 1990-588208	A 19900926
			WO 1990-US5760	A 19901009
			US 1993-98978	B3 19930728

OTHER SOURCE(S): MARPAT 115:114520  
G1

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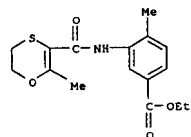
L12 ANSWER 21 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



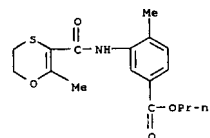
AB Numerous potential antiviral (thio)amidobenzoates RC(X)NHC6HnR14-nCO2R2 [R = (un)substituted 1,4-oxathiazin-3-yl, furyl, Ph, 1,4-dithiazin-2-yl; R1 = Cl, F, OH; R2 = alkyl; X = O, S] and related compds. were prepared. Thus, amidobenzoate I was prepared by reaction of 5,6-dihydro-2-methyl-1,4-oxathiazin-3-carbonyl chloride and 2,5-dichloro-1,4-dioxane-3-carboxylic acid.

IT 135812-16-7P 135812-64-5P 135813-23-9P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as human immunodeficiency virus inhibitor)

RN 135812-16-7 HCAPLUS  
 CN Benzoic acid,  
 3-[[[(5,6-dihydro-2-methyl-1,4-oxathiazin-3-yl)carbonyl]amino]-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)]

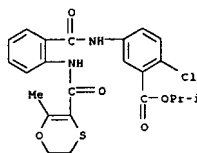


RN 135812-64-5 HCAPLUS  
 CN Benzoic acid,  
 3-[[[(5,6-dihydro-2-methyl-1,4-oxathiazin-3-yl)carbonyl]amino]-4-methyl-, propyl ester (9CI) (CA INDEX NAME)]



RN 135813-23-9 HCAPLUS  
 CN Benzoic acid, 2-chloro-5-[[2-[[[(5,6-dihydro-2-methyl-1,4-oxathiazin-3-

L12 ANSWER 21 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
 yl]carbonyl]amino]benzoyl]amino]-, 1-methylethyl ester (9CI) (CA INDEX NAME)]

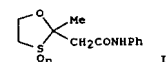


L12 ANSWER 22 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1982:217860 HCAPLUS  
 DOCUMENT NUMBER: 96:217860  
 TITLE: 5,6-Dihydro-2-methyl-N-phenyl-1,4-oxathiazin-3-carboxamide  
 INVENTOR(S): Znotins, Andrew A.; Brewer, Arthur D.  
 PATENT ASSIGNEE(S): Uniroyal Ltd., Can.  
 SOURCE: Can., 25 pp. Division of Can. Appl. No. 310,606.  
 CODEN: CAXXA4  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 1118429	A2	19820216	CA 1981-371748	19810225
CA 1109073	A1	19810915	CA 1978-310606	19780905
HU 24629	A2	19830328	HU 1979-UI283	19790904
HU 182614	B	19840228		
IL 58177	A	19840831	IL 1979-58177	19790904
DK 7903709	A	19800306	DK 1979-3709	19790905
DK 154767	B	19811219		
DK 154767	C	19800605		
AU 7950603	A	19800417	AU 1979-50603	19790905
AU 526670	B2	19830127		
EP 10843	A1	19800514	EP 1979-301827	19790905
EP 10843	B1	19831109		
R: DE, FR, GB, IT, NL				
ZA 7904694	A	19800827	ZA 1979-4694	19790905
DD 146599	A5	19810218	DD 1979-215367	19790905
EP 42182	A2	19811223	EP 1981-106224	19790905
EP 42182	A3	19811230		
R: DE, FR, GB, IT, NL				
CS 215123	B2	19820730	CS 1979-6017	19790905
CS 215124	B2	19820730	CS 1981-458	19790905
PL 124628	B1	19830228	PL 1979-218135	19790905
SU 1029828	A3	19830715	SU 1979-2806608	19790905
JP 56099469	A	19810810	JP 1980-167336	19801127
JP 56099470	A	19810810	JP 1980-167337	19801127
PRIORITY APPLN. INFO.:			CA 1978-310606	A3 19780905
			CA 1979-334458	A 19790827
			EP 1979-301827	A 19790905

OTHER SOURCE(S): CASREACT 96:217860  
 GI

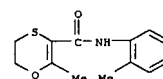


AB The title compound was prepared in 63% overall yield by treating MeCOCH2CONHPh with H5C6H2CH2CH2OH to give I (n = 0) which oxidized with H2O2 and PhMe in

L12 ANSWER 22 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
 the presence of Na2WO4, followed by ring enlargement of I (n = 1) with Bu4N+Br-.

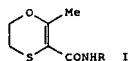
IT 6577-30-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 6577-30-6 HCAPLUS  
 CN 1,4-Oxathiazin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)- (9CI) (CA INDEX NAME)



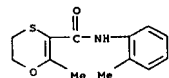
10544897

L12 ANSWER 23 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1980:141624 HCAPLUS  
 DOCUMENT NUMBER: 92:141624  
 TITLE: A molecular receptor model for carboxin  
 AUTHOR(S): Schewe, T.; Mueller, W.; Lyr, H.; Zanke, D.  
 CORPORATE SOURCE: Inst. Physiol. Biol. Chem., Humboldt-Univ. Berlin,  
 Berlin, Ger. Dem. Rep.  
 SOURCE: Abhandlungen der Akademie der Wissenschaften der DDR,  
 Abteilung Mathematik, Naturwissenschaften, Technik  
 (1979), (2N, Vortr. Int. Sym p.: Systemfungiz., 5th,  
 1977), 241-51  
 CODEN: AAWTD2; ISSN: 0138-1059  
 DOCUMENT TYPE: Journal  
 LANGUAGE: German  
 GI



AB Data are given on the in vitro effect of 24 carboxin [5234-68-4] derivs. and analogs I (R = H, tert-Bu, cyclopentyl, cyclohexyl, Ph, substituted Ph,  $\alpha$ -naphthyl, etc) and R'CONHPh (R' = 2-methyl-1,4-oxathiin-3-yl, o-tolyl, o-hydroxyphenyl, 2-methyl-1,4-oxathiin-3-yl dioxido, etc) on succinate cytochrome c reductase [9028-10-8] from cattle heart mitochondrial nonphosphorylating electron-transport particles (Mueller, W., et al., 1977). The succinate dehydrogenase subunit high-potential Fe-S protein (Fe S-center S3) seems to be the specific receptor, and the interaction seems to involve the hydrophobic group at the amide-N, the 2-cis-Me of the oxathiin cycle, and the vinylogous CO group. A model is given, by which the electrophilic C of the  $\alpha$ - $\beta$ -unsatd. CO group is bound to the cysteine-S of the Fe-S cluster, whereas the N and O are bound coordinatively to 2 different Fe atoms of the cluster.

IT 6577-30-6 6577-34-0  
 RL: PROC (Process)  
 (binding of, to succinate dehydrogenase high-potential iron-sulfur protein, mol. receptor model in relation to)  
 RN 6577-30-6 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-  
 (9CI)  
 (CA INDEX NAME)

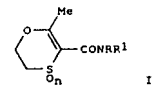


L12 ANSWER 24 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1980:71049 HCAPLUS  
 DOCUMENT NUMBER: 92:71049  
 TITLE: Fungicidal and bactericidal composition  
 INVENTOR(S): Von Schmeling, Bogislav; Kulka, Marshall; Thiera, Darel Singh; Harrison, William Ashley  
 PATENT ASSIGNEE(S): Uniroyal, Inc., USA; Uniroyal Ltd.  
 SOURCE: Rom., 15 pp.  
 CODEN: RUXXA3  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Romanian  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RO 61104	A2	19771010	RO 1971-68189	19710911

PRIORITY APPLM. INFO.:  
 RO 1971-68189 19710911

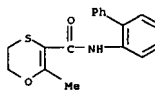
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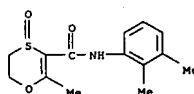
AB The oxathiin derivs. I (R = alkyl, cycloalkyl, aralkyl, or aryl; R1 = H, alkyl, or substituted alkyl; n = 1 or 2) are systemic bactericides and fungicides. Thus, soil application of 5 ppm  
 2,3-dihydro-5-carboxanilido-6-methyl-1,4-oxathiin 4,4-dioxide [5259-88-1] at sowing controlled bean rust caused by artificial Rhizoctonia solani infestation. The synthesis of I is given.  
 IT 17757-73-2P 17757-76-5P 17757-78-7P  
 17757-79-8P 17757-91-4P 17757-93-6P  
 17757-94-7P 17757-98-1P 17758-04-2P  
 17758-05-3P 17762-58-2P 17762-75-3P  
 17762-76-4P 17946-62-2P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (preparation and bactericidal and fungicidal activity of)  
 RN 17757-73-2 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-, 4-oxide (9CI) (CA INDEX NAME)

L12 ANSWER 23 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

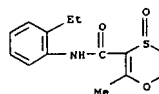
RN 6577-34-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(1,1'-biphenyl)-2-yl-5,6-dihydro-2-methyl-  
 (9CI) (CA INDEX NAME)



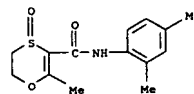
L12 ANSWER 24 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



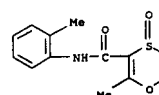
RN 17757-76-5 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-, 4-oxide (9CI) (CA INDEX NAME)



RN 17757-78-7 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-, 4-oxide (9CI) (CA INDEX NAME)



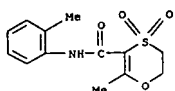
RN 17757-79-8 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-, 4-oxide (9CI) (CA INDEX NAME)



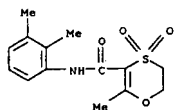
RN 17757-91-4 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-, 4,4-dioxide (9CI) (CA INDEX NAME)

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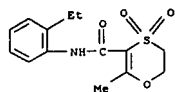
L12 ANSWER 24 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



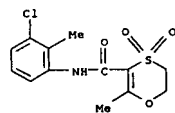
RN 17757-93-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



RN 17757-94-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

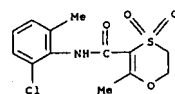


RN 17757-98-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

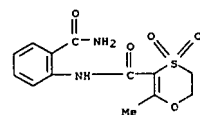


RN 17758-04-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

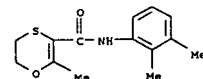
L12 ANSWER 24 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



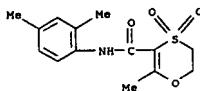
RN 17946-62-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(aminocarbonyl)phenyl]-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



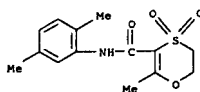
IT 13582-78-0P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and oxidation of)  
RN 13582-78-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



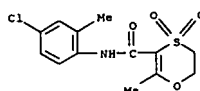
L12 ANSWER 24 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



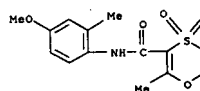
RN 17758-05-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,5-dimethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



RN 17762-58-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



RN 17762-75-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4-methoxy-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



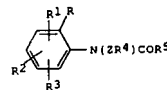
RN 17762-76-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-chloro-6-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 25 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984  
ACCESSION NUMBER: 1979:54799 HCAPLUS  
DOCUMENT NUMBER: 90:54799  
TITLE: Heterocyclic carboxylic acid anilides  
INVENTOR(S): Hubele, Adolf  
PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.  
SOURCE: Patentschrift (Switz.), 17 pp.  
CODEN: SWXXAS  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CH 606029	A5	19781013	CH 1977-15061	19750210
PRIORITY APPLN. INFO.:			CH 1977-15061	A 19750210

GI



AB The anilides I (R = Cl-4 alkyl or alkoxy, halogen; R1 = R2 = H, Cl-3 alkyl, halogen; R3 = H, Me; Z = CH2, CHMe; R4 = (esterified) CO2H, (substituted) CONH2; R5 = (Me- or halogen-substituted) 5- or 6-membered heterocycle with 1 or 2 hetero atoms) were prepared for use as

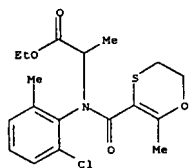
fungicides (no data). Thus, 2,6-Me2C6H3NH2 reacted with 2-furoyl chloride, and the product was treated with BrCHMeCO2Me to give I (R = Me, R1 = R2 = H, R3 = 6-Me, ZR4 = CHMeCO2Me, R5 = 2-furyl).

IT 58185-00-5P 58185-01-6P 58185-02-7P  
58185-04-9P 58185-15-2P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

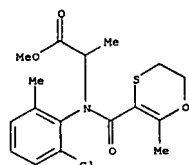
RN 58185-00-5 HCAPLUS  
CN Alanine,  
N-(2-chloro-6-methylphenyl)-N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

10544897

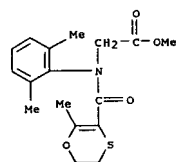
L12 ANSWER 25 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



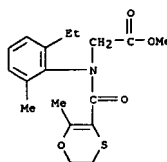
RN 58185-01-6 HCAPLUS  
 CN Alanine,  
 N-[(2-chloro-6-methylphenyl)-N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-, methyl ester (9CI) (CA INDEX NAME)



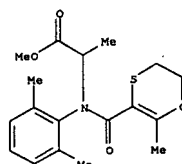
RN 58185-02-7 HCAPLUS  
 CN Glycine, N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-N-(2,6-dimethylphenyl)-, methyl ester (9CI) (CA INDEX NAME)



RN 58185-04-9 HCAPLUS  
 CN Glycine,  
 N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-N-(2-ethyl-6-

L12 ANSWER 25 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
 methylphenyl)-, methyl ester (9CI) (CA INDEX NAME)

RN 58185-15-2 HCAPLUS  
 CN Alanine, N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-N-(2,6-dimethylphenyl)-, methyl ester (9CI) (CA INDEX NAME)



L12 ANSWER 26 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

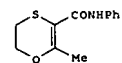
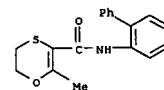
ACCESSION NUMBER: 1979:17500 HCAPLUS

DOCUMENT NUMBER: 90:17500

TITLE: Oxathiin carboxamides highly active against carboxin-resistant succinic dehydrogenase complexes from carboxin-selected mutants of Ustilago maydis and Aspergillus nidulans

AUTHOR(S): White, G. A.; Thorn, G. D.; Georgopoulos, S. G.  
 CORPORATE SOURCE: Res. Inst., Agric. Canada, London, ON, Can.  
 SOURCE: Pesticide Biochemistry and Physiology (1978), 9(2), 165-82  
 CODEM: PCBPBS; ISSN: 0048-3575

DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI

L12 ANSWER 26 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
 CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

AB Succinate dehydrogenase [9002-02-2] complex (SDC) of certain oxathiin carboxamides were selectively active against a particular mutated U. maydis and A. nidulans. Mol. structures affecting the phenotypic expression of mutation to carboxin (I) [5234-68-4] resistance in U. maydis did not appear to affect similarly such expression in A. nidulans and vice versa. Of particular interest was the discovery of oxathiin carboxamides, e.g., 4'-phenylcarboxin [13582-42-8], which were more inhibitory to the enzyme complex from one category of I-resistant mutants of U. maydis than from the wild-type strain. Although such neg. correlation between I and other I analogs was not observed in studies

with other categories of mutants, structures which drastically lower the resistance level were found in all cases. It appears that for any given mutation affecting I sensitivity of the SDC in fungi, a specific structural group of carboxamides (or even a specific carboxamide) may be found which will alleviate or reverse the effect of the mutation in terms of inhibition of the SDC. If the mutations alter a protein receptor site for carboxamides, such mutations might be expected to influence the binding of I of different structure. In essence, then, different mol. structures can recognize different alterations in the mutated enzyme complex and inhibit effectively. With a few exceptions, the inhibition

by carboxamides of cell growth of wild-type and I-resistant strains of U. maydis and A. nidulans closely paralleled the inhibition of their resp. SDCs. Although the few analogs tested were found unable to control corn smut systemically in seedlings artificially inoculated with compatible I-resistant strains, control of naturally occurring I-resistant strains

of pathogenic fungi may be possible using particular structural analogs of I which selectively inhibit the mutant organisms.

IT 6577-34-0P  
 RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, and inhibition of succinic dehydrogenase from Aspergillus and Ustilago resistant to carboxin)

RN 6577-34-0 HCAPLUS

10544897

L12 ANSWER 27 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1978-70338 HCAPLUS

DOCUMENT NUMBER: 88-70338

TITLE: Detoxification of carboxins

AUTHOR(S): Lyr, Horst; Ritter, G.; Polter, C.

CORPORATE SOURCE: Inst. Pflanzenschutzforsch., DAW, Kleinmachnow, Ger.

Dem. Rep.

SOURCE: Systemfungiz., Int. Symp. (1975), Meeting Date 1974, 167-76. Editor(s): Lyr, Horst; Polter, C.

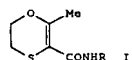
Akad.-Verlag: Berlin, E. Ger.

CODEN: 37FLAE

Conference

DOCUMENT TYPE: German

GI



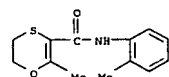
AB Carboxin (I, R = Ph) [5234-68-4] was oxidized by *Ustilago zeae* to carboxin sulfoxide [17757-70-9], especially in light. Some oxidation was shown by *Trametes versicolor* and *Aspergillus niger* mitochondria. I (R = Ph) was also oxidized by riboflavin [83-88-5] in light. Cleavage of various I derivs. by barley aryl acyl amidase [9025-18-7] at pH 7.5, dependent on the substituent R, and was in the increasing order R = Ph, m-MeC<sub>6</sub>H<sub>4</sub>, o-C<sub>6</sub>H<sub>4</sub>, p-MeC<sub>6</sub>H<sub>4</sub>, p-C<sub>6</sub>H<sub>4</sub>, o-PhC<sub>6</sub>H<sub>4</sub>, p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, α-naphthyl, and o-MeC<sub>6</sub>H<sub>4</sub>. Barley aryl acyl amidase was characterized using o-chloropropionanilide [2760-32-9] as a substrate.

IT 6577-30-6 6577-34-0

RL: RCT (Reactant); RACT (Reactant or reagent)  
(hydrolysis of, by aryl acyl amidase, carboxin stability in relation to)

RN 6577-30-6 HCAPLUS

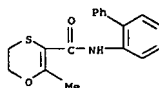
CN 1,4-Oxathin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-  
(9CI) (CA INDEX NAME)



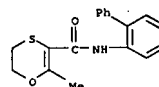
RN 6577-34-0 HCAPLUS

CN 1,4-Oxathin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-  
(9CI) (CA INDEX NAME)

L12 ANSWER 27 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



L12 ANSWER 28 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



L12 ANSWER 28 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1978-70337 HCAPLUS

DOCUMENT NUMBER: 88-70337

TITLE: The problem of selectivity as well as structure-receptor relationship of carboxin and its analogs

AUTHOR(S): Lyr, Horst; Schewe, T.; Mueller, W.; Zanke, D.

CORPORATE SOURCE: Inst. Pflanzenschutzforsch., DAW, Kleinmachnow, Ger.

Dem. Rep.

SOURCE: Systemfungiz., Int. Symp. (1975), Meeting Date 1974, 153-66. Editor(s): Lyr, Horst; Polter, C.

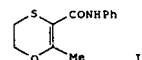
Akad.-Verlag: Berlin, E. Ger.

CODEN: 37FLAE

Conference

DOCUMENT TYPE: German

GI



AB Evidence is presented, together with literature data, in support of a site of attack for carboxin (I) [5234-68-4] at the complex II-associated Fe-S-protein (FeSP) (Schewe, T., et al, 1973), situated after succinate dehydrogenase in the respiratory chain. I inhibits the electron transfer from the reduced FeSP to ubiquinone and cytochromes b. I is an inhibitor of both the main and alternate respiratory pathway. *Rhodotorula mucilaginosa* was used to obtain data on respiration inhibition by I together with that by antimycin A, TTFA (2-theonyltrifluoroacetone) and 8-hydroxyquinoline. Inhibition of the succinic dehydrogenase activity in mitochondria and ETP (electron transport particles) from the I-sensitive *Trametes versicolor* and I-resistant *Trichodesma viride* were tested for I and I derivs. Effects on succinate cytochrome c reductase and NADH oxidase of cattle heart ETP were also tested. The activity of the I derivs. on the cattle heart and *T. versicolor* ETP showed moderate correlation to the hydrophobicity parameter (octanol-H<sub>2</sub>O partition) of

the same derivs. No such correlation was shown for *T. viride*. Selectivity of I activity is probably due primarily to receptor affinity rather than hydrophobicity. Structure-receptor interactions are discussed.

IT 6577-34-0

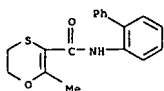
RL: BIOL (Biological study)  
(biol. electron transfer systems response to, fungicidal mechanism of action in relation to)

RN 6577-34-0 HCAPLUS

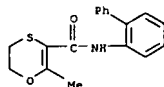
CN 1,4-Oxathin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-  
(9CI) (CA INDEX NAME)

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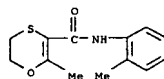
L12 ANSWER 29 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1978:59279 HCAPLUS  
 DOCUMENT NUMBER: 88:59279  
 TITLE: The inhibition of chitin synthesis in vivo  
 AUTHOR(S): Ritter, G.  
 CORPORATE SOURCE: Inst. Forstwiss., Eberswalde, Ger. Dem. Rep.  
 SOURCE: Systemfungiz., Int. Symp. (1975), Meeting Date 1974, 203-8. Editor(s): Lyr, Horst; Polter, C. Akad.-Verlag: Berlin, E. Ger.  
 CODEN: 37FLAE  
 DOCUMENT TYPE: Conference  
 LANGUAGE: German  
 AB Of 20 fungicides tested, Nystatin [1400-61-9] and aureofungin [8065-41-6] showed the highest inhibition of chitin [1398-61-4] biosynthesis in *Rhodotorula rubra*, in vivo. Aureofungin at 10<sup>-7</sup>M inhibited chitin biosynthesis by 50%, but caused only slight inhibition of glucosamine-3H uptake, by *R. rubra*. This, together with earlier findings, suggests a mechanism which does not involve strong membrane destruction.  
 IT 6577-34-0  
 RL: BIOL (Biological study)  
 (chitin formation inhibition by, in *Rhodotorula rubra*)  
 RN 6577-34-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



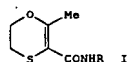
L12 ANSWER 30 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



IT 6577-30-6  
 RL: BIOL (Biological study)  
 (respiratory enzymes inhibition by, in cattle heart mitochondrial particles, receptors in fungi in relation to)  
 RN 6577-30-6 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 30 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1978:32999 HCAPLUS  
 DOCUMENT NUMBER: 88:32999  
 TITLE: Effective mechanisms of respiratory inhibition by the fungicides of the carboxin group. Effect of oxathiin derivatives and analogs on nonphosphorylating submitochondrial particles from beef heart  
 AUTHOR(S): Mueller, W.; Schewe, T.; Lyr, H.; Zanke, D.  
 CORPORATE SOURCE: Inst. Physiol. Biol. Chem., Humboldt-Univ., Berlin, Ger. Dem. Rep.  
 SOURCE: Zeitschrift fuer Allgemeine Mikrobiologie (1977), 17(5), 359-72  
 CODEN: ZAPOAK; ISSN: 0044-2208  
 DOCUMENT TYPE: Journal  
 LANGUAGE: German  
 GI

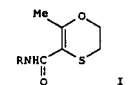


AB The inhibitory activity of carboxin (I, R = Ph) [5234-68-4] and of 22 derivs. and analogs, such as I (R = H, cycloalkyl, n-naphthyl, substituted Ph, etc.) was tested on the succinate-cytochrome c reductase [9028-10-8] and NADH oxidase [9032-21-7] of nonphosphorylating electron-transport particles (ETP) from cattle-heart mitochondria. Some were also tested on particulate succinic dehydrogenase [9002-02-2] of the carboxin-sensitive *Trametes versicolor* and carboxin-resistant *Trichoderma viride*. The inhibitory activity of I on ETP cytochrome c oxidoreductase correlated well with that on succinic dehydrogenase of *Trametes versicolor*, but not with that on succinic dehydrogenase of *Trichoderma viride*. Thus, cattle-heart ETP is a suitable model for carboxin receptors. Low correlation was shown between the activity of I on cytochrome c oxidoreductase and the hydrophobicity parameter lg P of I (P is the octanol to water distribution coefficient). Electronic and steric effects were also evident. A multicenter mechanism is suggested for the receptor-binding of I. Mechanism of resistance to I is discussed.  
 IT 6577-34-0  
 RL: BIOL (Biological study)  
 (respiratory enzymes inhibition by, in cattle heart mitochondrial particles, receptors in fungi in relation to)  
 RN 6577-34-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

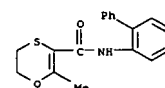
L12 ANSWER 31 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1976:164796 HCAPLUS  
 DOCUMENT NUMBER: 84:164796  
 TITLE: N-Substituted amides of 2,3-dihydro-6-methyl-1,4-oxathiin-5-carboxylic acid  
 INVENTOR(S): Eckstein, Zygmunt; Ejmochi, Zdzislaw; Fulde, Stefan; Kwiatkowski, Marian; Sawicki, Konrad; Tippe, Andrzej  
 PATENT ASSIGNEE(S): Politechnika Warszawska, Pol.  
 SOURCE: Pol., 4 pp.  
 CODEN: POXXA7  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Polish  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PL 76496	A5	19750228	PL 1971-146555	19710301
PRIORITY APPLN. INFO.:			PL 1971-146555	A 19710301

GI



AB Fungicidal 1,4-oxathiins (I, R = Ph, 2-BrC<sub>6</sub>H<sub>4</sub>, 2,4-F<sub>2</sub>C<sub>6</sub>H<sub>3</sub>, 2-PhC<sub>6</sub>H<sub>4</sub>, o-MeOC<sub>6</sub>H<sub>4</sub>) were prepared. Thus, 2,3-dihydro-6-methyl-1,4-oxathiin-5-carboxylic acid in Me<sub>2</sub>CO-dioxane was treated with NMe<sub>3</sub> at -10° and then with EtO<sub>2</sub>CCl and PhNH<sub>2</sub> at -10° to -5° to give I (R = Ph).  
 IT 6577-34-0P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 6577-34-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

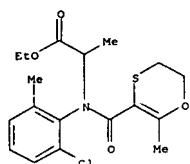


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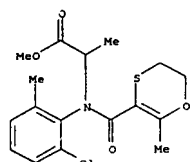
L12 ANSWER 32 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1976:58964 HCAPLUS  
 DOCUMENT NUMBER: 84:58964  
 TITLE: Microbiocidal and plant growth regulating anilines  
 INVENTOR(S): Hubele, Adolf  
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.  
 SOURCE: Ger. Offen., 46 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2513732	A1	19751016	DE 1975-2513732	19750327
DE 2513732	C2	19800414		
CH 590608	A5	19770815	CH 1974-4572	19750210
CH 603041	A5	19780815	CH 1975-1591	19750326
DK 7501358	A	19751003	DK 1975-1358	
DK 141168	B	19800128		
DK 141168	C	19800714		
DK 7501359	A	19751003	DK 1975-1359	19750326
DK 141995	B	19800804		
DK 141995	C	19801215		
FI 7500920	A	19751003	FI 1975-920	19750326
FI 63567	B	19803031		
FI 63567	C	19803711		
FI 7500921	A	19751003	FI 1975-921	19750326
NO 7501084	A	19751003	NO 1975-1084	19750326
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NO 142714	C	19801001		
SE 7503517	A	19751003	SE 1975-3517	19750326
SE 419218	B	19810720		
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SE 418086	C	19810813		
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FR 2265748	A1	19751024	FR 1975-9485	19750326
NL 7503754	A	19751006	NL 1975-3754	19750327
NL 160821	B	19790716		
NL 7503755	A	19751006	NL 1975-3755	19750327
AU 7579640	A	19751009	AU 1975-79640	19750327
AU 7579641	A	19760930	AU 1975-79641	19750327
CA 1050558	A1	19790313	CA 1975-223222	19750327
CA 1050546	A1	19790313	CA 1975-223227	19750327
DE 2560591	C2	19800608	DE 1975-2560591	19750327
BE 827419	A1	19751001	BE 1975-154971	19750401
BE 827420	A1	19751001	BE 1975-154972	19750401
ZA 7501996	A	19760225	ZA 1975-1996	19750401
ZA 7501997	A	19760225	ZA 1975-1997	19750401
DD 118510	A5	19760312	DD 1975-185144	19750401

L12 ANSWER 32 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
 2,3,6-Me2EtC6H2N(COR1)CHMeCO2Me (R1 = 2-furyl). About 115 I were prepd.  
 and tested on various fungi and plants.  
 IT 58185-00-5P 58185-01-6P 58185-02-7P  
 58185-04-9P 58185-15-2P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 58185-00-5 HCAPLUS  
 CN Alanine,  
 N-(2-chloro-6-methylphenyl)-N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)



RN 58185-01-6 HCAPLUS  
 CN Alanine,  
 N-(2-chloro-6-methylphenyl)-N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

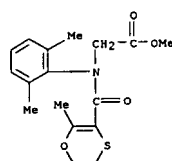


RN 58185-02-7 HCAPLUS  
 CN Glycine, N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-N-(2,6-dimethylphenyl)-, methyl ester (9CI) (CA INDEX NAME)

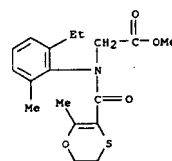


L12 ANSWER 32 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
 DD 118785 A5 19760320 DD 1975-185147 19750401  
 GB 1448810 A 19760908 GB 1975-13332 19750401  
 DD 124733 A5 19770309 DD 1975-192060 19750401  
 ES 436174 A1 19770416 ES 1975-436174 19750401  
 ES 436175 A1 19770416 ES 1975-436175 19750401  
 IL 46988 A 19771230 IL 1975-46988 19750401  
 AT 7502446 A 19780115 AT 1975-2446 19750401  
 AT 345614 B 19780925  
 GB 1498199 A 19780118 GB 1975-13349 19750401  
 AT 343407 B 19780526 AT 1975-2448 19750401  
 IL 46989 A 19780615 IL 1975-46989 19750401  
 HU 172935 B 19790128 HU 1975-CI1563 19750401  
 HU 173317 B 19790428 HU 1975-CI1564 19750401  
 RO 73181 A1 19821011 RO 1975-81867 19750401  
 JP 50135225 A 19751027 JP 1975-40226 19750402  
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 JP 50135226 A 19751027 JP 1975-40227 19750402  
 JP 60042202 B 19850920  
 PL 97785 B1 19780330 PL 1975-179266 19750402  
 PL 98627 B1 19780531 PL 1975-179265 19750402  
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 CS 183789 B2 19780731 CS 1975-2240 19750402  
 SU 682096 A3 19790825 SU 1975-2120455 19750402  
 SU 743561 A3 19800625 SU 1975-2121601 19750402  
 RO 79677 A1 19820817 RO 1975-81876 19750402  
 RO 84021 A1 19840512 RO 1975-106426 19750402  
 SU 628812 A3 19781015 SU 1975-2186207 19751105  
 SU 626690 A3 19780930 SU 1975-2342705 19760405  
 US 4046911 A 19770906 US 1976-703037 19760706  
 US 4094990 A 19780613 US 1976-709066 19760727  
 CH 598428 A5 19780428 CH 1977-4805 19770419  
 AT 7707656 A 19800115 AT 1977-7656 19771027  
 AT 358025 B 19800811 AT 1977-7893 19771104  
 AT 7707893 A 19790815  
 AT 355561 B 19800310  
 JP 53135964 A 19781128 JP 1978-2327 19780112  
 JP 57040829 B 19820830  
 JP 53135965 A 19781128 JP 1978-2328 19780112  
 JP 58045433 B 19831008  
 PRIORITY APPLN. INFO.:  
 CH 1974-4572 A 19740402  
 CH 1975-1591 A 19750210  
 US 1975-563035 A2 19750328  
 US 1975-563036 A1 19750328  
 AT 1975-2446 A 19750401  
 AT 1975-2448 A 19750401  
 AB RnC6H5-nn(COR1)CH2COR3 (I; R = Me, MeO, Cl, Et, BuO, etc; n = 1-4; R1 = furyl, thienyl, pyrimidinyl etc.; R2 = H, Me; R3 = MeO, EtO, Me2N, etc.), useful as fungicides and plant growth regulators, were prepared Thus, 2,3,6-Me2EtC6H2NH2 reacted with BrCHMeCO2Me to give 2,3,6-Me2EtC6H2NHCCHMeCO2Me, which reacted with 2-furancarboxyl chloride to give

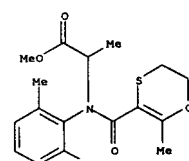
L12 ANSWER 32 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 58185-04-9 HCAPLUS  
 CN Glycine,  
 N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-N-(2-ethyl-6-methylphenyl)-, methyl ester (9CI) (CA INDEX NAME)



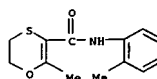
RN 58185-15-2 HCAPLUS  
 CN Alanine, N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-N-(2,6-dimethylphenyl)-, methyl ester (9CI) (CA INDEX NAME)



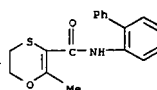
10544897

L12 ANSWER 33 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1975:573722 HCAPLUS  
 DOCUMENT NUMBER: 63:173722  
 TITLE: Structure-activity relations of carboxamide fungicides  
 and the succinic dehydrogenase complex of *Cryptococcus laurentii* and *Ustilago maydis*  
 AUTHOR(S): White, G. A.; Thorn, G. D.  
 CORPORATE SOURCE: Res. Inst., Agric. Dep. Canada, London, ON, Can.  
 SOURCE: Pesticide Biochemistry and Physiology (1975), 5(4), 380-95  
 CODEN: PCBPS; ISSN: 0048-3575  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI For diagram(s), see printed CA Issue.  
 AB The systemic fungicide, carboxin (I) [5234-68-4] and a variety of carboxamide compds. exhibit a marked specificity for Basidiomycete fungi. This unique specificity resides in the mitochondrial succinic dehydrogenase [9002-02-2] complex (SDC) of sensitive Basidiomycetes such as *U. maydis*, the corn smut fungus. The present study examines in detail the structure-activity relationships of 93 carboxamide compds. and the SDC of two carboxin-sensitive organisms, *U. maydis* and a Basidiomycetous yeast, *C. laurentii*. It has been possible to elucidate substantially the requirement in mol. structure needed for inhibition of the mitochondrial SDC. With few exceptions, a good correlation exists between the inhibitory activity of carboxamides towards the SDC of *U. maydis* and *C. laurentii* and the inhibition of growth of carboxamide-sensitive fungi, both in vitro and in vivo on the diseased plant. The structure-activity results were used as a basis for the synthesis of new, fungicidally-active carboxamides. The compds. most active against the mycelial growth of *Rhizoctonia solani* were also tested on spore germination or mycelial growth of non-Basidiomycete fungi. Three carboxanilides (3-methyl-thiophene-2-carboxanilide [56776-44-4], 3'-methyl-2-methylbenzanilide [56776-45-5], and 3'-methyl-2-ethylbenzanilide [56776-46-6]) had a fungitoxic spectrum which extended beyond Basidiomycetes. The spectrum of fungicidal activity of carboxanilides appears to be altered not only by substitution in the aniline ring, but by the nature of the ring attached to the carbonyl. No correlation was found between the inhibitory activity of oxathiins and benzanilides and their calculated partition coeffs.  
 IT 6577-30-6 6577-34-0 6577-38-4  
 13582-62-2 13582-78-0 14316-45-1  
 32416-55-0 35330-44-0 56776-47-7  
 RL: BIOL (Biological study)  
 (succinate dehydrogenase of Basidiomycete fungi inhibition by, structure and fungicidal activity in relation to)  
 RN 6577-30-6 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-(9CI) (CA INDEX NAME)

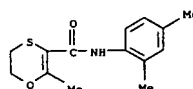
L12 ANSWER 33 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



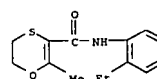
RN 6577-34-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)



RN 6577-38-4 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

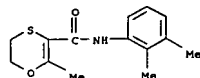


RN 13582-62-2 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

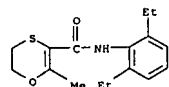


RN 13582-78-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

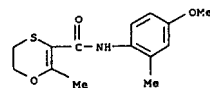
L12 ANSWER 33 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



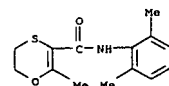
RN 14316-45-1 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2,6-diethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)



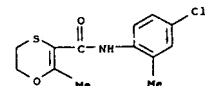
RN 32416-55-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(4-methoxy-2-methylphenyl)-2-methyl-(9CI) (CA INDEX NAME)



RN 35330-44-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2,6-dimethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)



RN 56776-47-7 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(4-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)



L12 ANSWER 33 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

10544897

L12 ANSWER 34 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1974:459175 HCAPLUS

DOCUMENT NUMBER: 81:59175

TITLE:

1,4-oxathiin derivatives protect plants against ozone

AUTHOR(S): Rich, Saul; Ames, Ronald; Zukel, J. W.

CORPORATE SOURCE: Connecticut Agric. Exp. Stn., New Haven, CT, USA

SOURCE: Plant Disease Reporter (1974), 58(2), 162-4

CODEN: PLDRA4; ISSN: 0032-0811

DOCUMENT TYPE:

LANGUAGE: English

AB Beans, cotton, tobacco, tomatoes and soybeans were protected from injury by 25 ppm ozone [10028-15-6], carboxin (I) [5234-68-4], and other 1,4-oxathiin deriva. The ability of the compds. to protect against ozone injury is not related to its fungicidal activity. The effect of

oxidation of the S atom or substitution on the anilide group on the effectiveness of the protective analogs was discussed.

IT 6577-30-6 13582-62-2

RL: BIOL (Biological study)

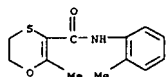
(ozone injury prevention by, in crop plants)

RN 6577-30-6 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-

(9CI)

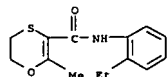
(CA INDEX NAME)



RN 13582-62-2 HCAPLUS

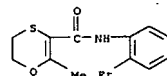
CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl- (9CI)

(CA INDEX NAME)



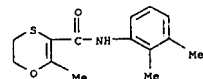
L12 ANSWER 35 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

(Continued)



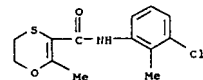
RN 13582-78-0 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



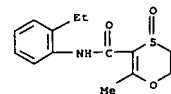
RN 13582-79-1 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 17757-76-5 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-4-oxide (9CI) (CA INDEX NAME)



RN 17757-79-8 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-4-oxide (9CI) (CA INDEX NAME)

L12 ANSWER 35 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1974:434549 HCAPLUS

DOCUMENT NUMBER: 81:34549

TITLE: 5,6-Dihydro-2-methyl-1,4-oxathiin-3-carboxamide as plant protectant against air pollution

INVENTOR(S): Hager, Frederick M.

PATENT ASSIGNEE(S): Uniroyal Ltd.

SOURCE: Ger. Offen., 28 pp.

CODEN: GWXXBK

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2238053	A1	19731206	DE 1972-2238053	19720802
AT 319661	B	19750110	AT 1972-6239	19720719
FR 2193548	A1	19740222	FR 1972-26726	19720725
GB 1399286	A	19750702	GB 1972-35159	19720727
IT 964932	B	19740131	IT 1972-69630	19720811
CA 980593	A1	19751230	CA 1972-151255	19720908
CA 980594	A1	19751230	CA 1972-151256	19720908
JP 49024724	A	19740305	JP 1972-94464	19720920
PRIORITY APPLN. INFO.:			US 1972-255558	A 19720522

AB Thirty-five oxathiin deriva. (I, R = H, Me, or Et, R1 = e.g. Ph, cyclohexyl, 4-MeC6H4, 2-EtC6H4, or 2,4-(MeO)2C6H3), their S-oxides, and S,S-dioxides protected plants, e.g. tobacco, bean, cotton, soybean, or tomato plants, against damaging by air pollutants, e.g. ozone. Thus, administration of 12 ppm

5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxanilide [5234-68-4] to the soil protected Pinto beans 100% against ozone damage.

IT 6577-30-6 13582-62-2 13582-78-0

13582-79-1 17757-76-5 17757-79-8

17757-91-4 17757-94-7 32416-55-0

RL: BIOL (Biological study)

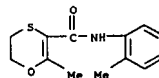
(plant protective agent, against ozone damage)

RN 6577-30-6 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-

(9CI)

(CA INDEX NAME)



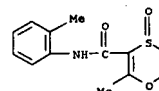
RN 13582-62-2 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl- (9CI)

(CA INDEX NAME)

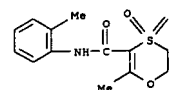
L12 ANSWER 35 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

(Continued)



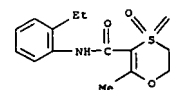
RN 17757-91-4 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-4,4-dioxide (9CI) (CA INDEX NAME)



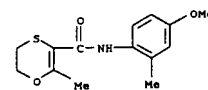
RN 17757-94-7 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-4,4-dioxide (9CI) (CA INDEX NAME)



RN 32416-55-0 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(4-methoxy-2-methylphenyl)-2-methyl- (9CI) (CA INDEX NAME)



10544897

L12 ANSWER 36 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1973:155412 HCAPLUS  
 DOCUMENT NUMBER: 78:155412

TITLE:  
 1-Oxa-2-methyl-3-(aminocarbonyl)-4-thia-2-cyclohexenes  
 INVENTOR(S): Kulka, Marshall; Thiara, Dalel Singh; Harrison,  
 William Ashley  
 PATENT ASSIGNEE(S): Uniroyal, Inc.  
 SOURCE: Ger., 10 pp. Division of Ger. 1,543,942 (See Neth.  
 66,05,525, CA 66:95055w).  
 CODEN: GWXXAW

DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

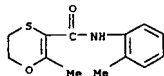
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1793632	C2	19730719	DE 1967-1793632	19660425
US 3393202	A	19680716	US 1965-451048	19650426
BR 6677408	DO	19730809	BR 1966-177408	19660228
BE 679985	A	19661003	BE 1966-679985	19660425
IL 25635	A	19700420	IL 1966-25635	19660426
NL 6910431	A	19691027	NL 1969-10431	19690708
			US 1965-451048	A 19650426

PRIORITY APPLN. INFO.:

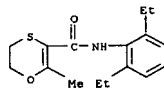
AB The title compds. acted as systemic fungicides in plants and animals. Some individual compds. also showed bactericidal and antiviral activity. For example, 1-oxa-2-methyl-3-(o-phenylanilidocarbonyl)-4-thiacyclohex-2-ene (I) [6577-34-0] was highly effective in vitro at 1000 ppm against the human pathogens *Trichophyton mentagrophytes* var *interdigitale* and *T. rubrum*. Spraying with 1-oxa-2-methyl-3-(anilidocarbonyl)-4-thiacyclohex-2-ene (II) [5234-68-4] was 100% effective against *Uromyces phaseoli* on beans at 100 ppm and 90% effective against *Alternaria solani* on tomatoes at 500 ppm. Incorporation of 20 ppm 1-oxa-2-methyl-3-(N,N-dibutylamidocarbonyl)-4-thiacyclohex-2-ene [13582-30-4] into the soil before sowing gave 94% protection of cotton from *Rhizoctonia solani*.

IT 6577-30-6 6577-34-0 13582-62-2 13582-78-0 13582-84-8 14316-45-1  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

RN 6577-30-6 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-  
 (9CI) (CA INDEX NAME)

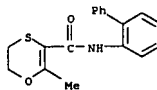


L12 ANSWER 36 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

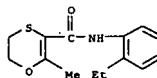


L12 ANSWER 36 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

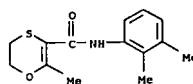
RN 6577-34-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-  
 (9CI) (CA INDEX NAME)



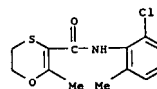
RN 13582-62-2 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-  
 (9CI) (CA INDEX NAME)



RN 13582-78-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-  
 (9CI) (CA INDEX NAME)



RN 13582-84-8 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2-chloro-6-methylphenyl)-5,6-dihydro-2-methyl-  
 (9CI) (CA INDEX NAME)



RN 14316-45-1 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2,6-diethylphenyl)-5,6-dihydro-2-methyl-  
 (9CI) (CA INDEX NAME)

L12 ANSWER 37 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1973:39134 HCAPLUS

DOCUMENT NUMBER: 78:39134

TITLE: Effectiveness of systemic fungicide seed dressings as protectants of barley seedlings against *Cochliobolus sativus*

AUTHOR(S): Richardson, Lloyd T.

CORPORATE SOURCE: Res. Inst., Canada Dep. Agric., London, ON, Can.

SOURCE: Canadian Journal of Plant Science (1972), 52(6), 949-53

CODEN: CPLSAY; ISSN: 0008-4220

DOCUMENT TYPE: Journal

LANGUAGE: English

AB *C. sativus* was completely controlled on barley seeds by treatment with 5 g

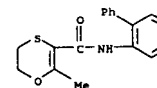
Vitavax [5234-68-4], 2.5 g F 427 [2,3-dihydro-5-o-phenylanilido-6-methyl-1,4-oxathiin] [6577-34-0] or 2.5 g G 696 [2,4-dimethyl-5-carboxamidothiazole] [21452-18-6]/kg seed. In the greenhouse, the emergence of barley was increased by seed treatment with 2.5 g G 696/kg. Of all the seed-dressing fungicides tested, only G 696 controlled infection from leaf inoculation.

IT 6577-34-0

RL: BIOL (Biological study)  
 (Cochliobolus sativus control by, in barley, by seed treatment)

RN 6577-34-0 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-  
 (9CI) (CA INDEX NAME)



10544897

L12 ANSWER 38 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1972:526649 HCAPLUS

DOCUMENT NUMBER: 77:126649

TITLE: 5,6-Dihydro-2-methyl-1,4-oxathiin-3-carboxamide

4,4-dioxides

INVENTOR(S): Pande, Gyan Shanker; Balatoni, Julius Attila

PATENT ASSIGNEE(S): Uniroyal Ltd.

SOURCE: Ger. Offen., 22 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2158312	A	19720713	DE 1971-2158312	19711124
US 3888878	A	19750610	US 1970-101429	19701124
NL 7116006	A	19720627	NL 1971-16006	19711119
IT 942931	B	19730402	IT 1971-70838	19711123
RO 62258	A1	19710105	RO 1971-68848	19711124
AT 312626	B	19740110	AT 1971-10260	19711129
FR 2119390	A5	19720804	FR 1971-44250	19711209
GB 1379745	A	19750108	GB 1971-57268	19711209
CH 559745	A5	19750314	CH 1971-17968	19711209
CS 187353	B2	19790131	CS 1971-8614	19711210
SU 420606	A3	19740515	SU 1971-1726644	19711217
SE 394509	B	19760510	SE 1971-16440	19711221
DK 127508	B	19731119	DK 1971-6315	19711223
PL 83078	A5	19751231	PL 1971-152444	19711223
PRIORITY APPLN. INFO.:			US 1970-101429	A 19701224

GI For diagram(s), see printed CA Issue.

AB Eleven title compds. (I, R = Ph, hexyl, 2,6-Et2C6H3, o-MeC6H4, 2,6-ClMeC6H3, 3,2-ClMeC6H3, cyclohexyl, 2,6-xylyl, m-O2NC6H4, α-naphthyl, Me2CH), useful as fungicides, were prepared by oxidation of the oxathiin with a 2-phase mixture of HCO2H + H2O2 in either MeCOCHMe2

or

MePh at 75-92°. Thus, 5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxanilide was suspended in MeCOCHMe2, HCO2H, and H2O2, and the mixture

refluxed 1.5 hr to give 97% I (R = Ph).

IT 6577-30-6P 13582-79-1P 13582-94-8P

14316-45-1P 35330-44-0P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 6577-30-6 HCAPLUS

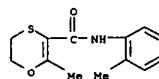
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-

(9CI)

(CA INDEX NAME)

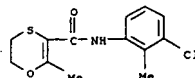
L12 ANSWER 38 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

(Continued)



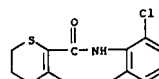
RN 13582-79-1 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



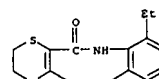
RN 13582-84-8 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2-chloro-6-methylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 14316-45-1 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2,6-diethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

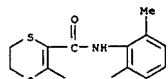


RN 35330-44-0 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2,6-dimethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 38 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

(Continued)



L12 ANSWER 39 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1972:444336 HCAPLUS

DOCUMENT NUMBER: 77:44336

TITLE: Control of virus diseases of plants with

5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxamides

INVENTOR(S): Davis, Robert A.; Grahame, Robert E.; Kulka, Marshall

PATENT ASSIGNEE(S): Uniroyal, Inc.; Uniroyal Ltd.

SOURCE: U.S., 4 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3657449	A	19720418	US 1970-17945	19700309
CA 942189	A1	19740219	CA 1970-97250	19701103
PRIORITY APPLN. INFO.:			US 1970-17945	A 19700309

AB Plant diseases caused by virus, such as tobacco ringspot and southern bean

mosaic viruses, are controlled by application of oxathiincarboxamides.

Under severe test conditions where the untreated compea plants were

killed

within 5-7 days, treatment with 5,6-dihydro-2-methyl-N-(m-tolyl)-1,4-oxathiin-3-carboxamide (I) [6577-31-7] (35 ppm) resulted in 100% survival

2-3 weeks after injection with tobacco ringspot virus when I was applied

as soil drench prior to inoculation.

IT 6577-34-0 13582-62-2 17757-91-4

35330-44-0

RL: BIOL (Biological study)

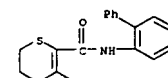
(as virucide for plants)

RN 6577-34-0 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-

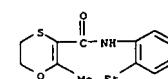
(9CI)

(CA INDEX NAME)



RN 13582-62-2 HCAPLUS

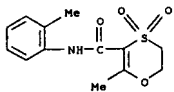
CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



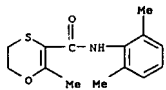
RN 17757-91-4 HCAPLUS

10544897

L12 ANSWER 39 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
 CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-, 4,4-dioxide (9CI) (CA INDEX NAME)



RN 35330-44-0 HCAPLUS  
 CN 1,4-Oxathiin-3-carboxamide, N-(2,6-dimethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



L12 ANSWER 40 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1972:786 HCAPLUS

DOCUMENT NUMBER: 76:786

TITLE: Potent effect of 1,4-oxathiin systemic fungicides on succinate oxidation by a particulate preparation from Ustilago maydis

AUTHOR(S): White, G. A.

CORPORATE SOURCE: Res. Inst., Canada Dep. Agric., London, ON, Can.

SOURCE: Biochemical and Biophysical Research Communications (1971), 44(5), 1212-19

CODEN: BBRCA9; ISSN: 0006-291X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Carboxine (5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxanilide) (I) [5234-68-4] noncompetitively inhibited succinate [110-15-6] oxidation in particulate preps. from U. maydis (corn smut) by acting as a steric inhibitor toward succinate dehydrogenase, or by inhibiting an electron carrier component immediate to the dehydrogenase. The most potent inhibitor was 3'-methyl carboxine (II) [6577-31-7] and the least potent, the hydrolysis product of I, 5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxylic acid [6577-69-1]. The thiazole fungicides, including 2-amino-4-methylthiazole-5-carboxanilide [21452-14-2], were also strong inhibitors of succinate oxidation

IT 6577-30-6 6577-34-0 35330-44-0

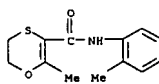
RL: BIOL (Biological study)

(succinate oxidation by Ustilago maydis in relation to)

RN 6577-30-6 HCAPLUS

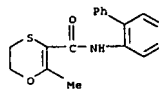
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)- (9CI) (CA INDEX NAME)

(CA INDEX NAME)



RN 6577-34-0 HCAPLUS

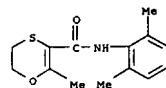
CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 35330-44-0 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2,6-dimethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 40 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



L12 ANSWER 41 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1972:778 HCAPLUS

DOCUMENT NUMBER: 76:778

TITLE: Mode of action of oxathiin systemic fungicides. Structure-activity relations

AUTHOR(S): Mathre, Donald E.

CORPORATE SOURCE: Dep. Bot. Microbiol., Montana State Univ., Bozeman, MT, USA

SOURCE: Journal of Agricultural and Food Chemistry (1971), 19(5), 872-4

CODEN: JAFCAU; ISSN: 0021-8561

DOCUMENT TYPE: Journal

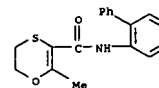
LANGUAGE: English

AB Toxicities of the oxathiin systemic fungicide carboxine (5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxanilide) (I) [5234-68-4] and 8 structurally related compds. were compared with their effects on metabolic pathways in sensitive fungi, the toxic compds. also showing strong inhibition of acetate [64-19-7] metabolism and RNA synthesis. Oxidation of the I S atom or elimination of the benzene ring from I reduced or destroyed the toxicity.

IT 6577-34-0  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)  
 (fungicides, action mechanism of)

RN 6577-34-0 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



10544897

L12 ANSWER 42 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1971:475245 HCAPLUS

DOCUMENT NUMBER: 75:75245

TITLE: Relations of molecular structure of 1,4-oxathiin fungicides to chemotherapeutic activity against rust and smut fungi in grasses

HARDISON, JOHN R.

CROPS RES. DIV., AGRIC. RES. SERV., CORVALLIS, OR, USA

SOURCE: Phytopathology (1971), 61(6), 731-5

CODEN: PHYTAJ; ISSN: 0031-949X

DOCUMENT TYPE: Journal

LANGUAGE: English

G1 For diagram(s), see printed CA Issue.

AB Carboxin (I), oxycarboxin (II), and 10 other carboxin analogs were evaluated for systemic fungicidal activity against stripe rust (*Puccinia striiformis*), stripe smut (*Ustilago striiformis*), and flag smut

(*Urocystis agropyri*) after soil application. Activity of I was poor against rust and

stripe smut and fair against flag smut. II was excellent against rust, good against stripe smut, and completely eradicated flag smut. 5,6-Dihydro-2-methyl-1,4-oxathiin-3-carboxanilide-4-oxide was superior to I against rust but inferior to II against all 3 diseases. 5,6-Dihydro-4'-methoxy-2-methyl-1,4-oxathiin-3-carboxanilide-4,4-dioxide had poor activity against stripe smut and decreased activity against flag smut but maintained good rust control as compared to II. Decreases or loss of activity against all 3 diseases was apparent in most nonoxidized analogs with substitutions to the phenyl ring, including 5,6-dihydro-2-methyl-N-(2-biphenyl)-1,4-oxathiin-3-carboxamide, 2',6'-diethyl-5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxamide, 3'-chloro-5,6-dihydro-2,2'-dimethyl-1,4-oxathiin-3-carboxanilide, and 5,6-dihydro-4'-methoxy-2,2'-dimethyl-1,4-oxathiin-3-carboxanilide. 5,6-Dihydro-2-methyl-N-(2-biphenyl)-1,4-oxathiin-3-carboxamide which a nonoxidized heterocycle impaired rust control but had a much better activity against stripe smut and flag smut than did I and less phytotoxicity than II. 5,6-Dihydro-2,2',3'-trimethyl-1,4-oxathiin-3-carboxanilide-4,4-dioxide, which combines the active substitutions of II and the 2',3'-dimethyl derivative, maintained strong activity against

all 3 diseases with somewhat less plant injury.

IT 6577-34-0 13582-78-0 13582-79-1

14316-45-1, 1,4-Oxathiin-3-carboxanilide, 2',6'-diethyl-5,6-

dihydro-2-methyl- 17757-93-6 32416-55-0

RL: BIOL (Biological study)

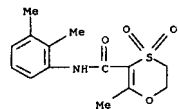
(Puccinia striiformis and Ustilago striiformis control by)

RN 6577-34-0 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

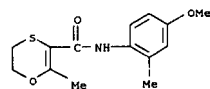
L12 ANSWER 42 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

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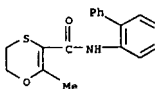
RN 32416-55-0 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(4-methoxy-2-methylphenyl)-2-methyl- (9CI) (CA INDEX NAME)



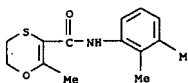
L12 ANSWER 42 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

(Continued)



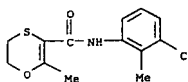
RN 13582-78-0 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



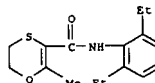
RN 13582-79-1 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 14316-45-1 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2,6-diethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 17757-93-6 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 43 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1970:497834 HCAPLUS

DOCUMENT NUMBER: 73:97834

TITLE: Fungitoxicity and structure-activity relation of some

oxathiin and thiazole derivatives

AUTHOR(S): Snel, Marten; Von Schmeling, Bogislav; Edgington,

Lloyd V.

CORPORATE SOURCE: Dep. Bot., Univ. Guelph, Guelph, ON, Can.

SOURCE: Phytopathology (1970), 60(8), 1164-9

CODEN: PHYTAJ; ISSN: 0031-949X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB ED50 values of carboxin (5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxanilide), its sulfone analog, oxycarboxin (both systemic fungicides used for control of diseases caused by Basidiomycetes), and 13 related, substituted oxathiin and thiazole compds. were determined to a selected number of

Basidiomycetes, Deuteromycetes, and a zygomycete. Eradicate activity of these compds. was determined against bean rust, *Uromyces phaseoli* typica. Substitutions in the carboxin mol. studied do not increase the spectrum

of fungi to which the oxathiins are toxic. A number of yeastlike lower Basidiomycetes belonging to the Tremellales (jelly fungi) proved to be insensitive to oxathiins. The only deuteromycete in this study sensitive to oxathiins was *Monilia cinerea* f. *americana*. The 3'-methyl analog of carboxin is the only compound surpassing the fungitoxicity of carboxin. Electron withdrawing groups (Cl and NO<sub>2</sub>) substituted in the aniline ring markedly reduce fungitoxicity. Replacement of the 2-methyloxathiin

moiety by an o-tolyl, 2,4-dimethylthiazolyl, 2-amino-4-methylthiazolyl, or even to some extent by a butyryl group, results in compds. retaining the original biol. activity. Benzanilide is significantly less toxic to *Rhizoctonia solani* than o-toluanilide, indicating that a methyl group in position 2 is necessary for good toxicity. Results of

evaluation of the eradicate activity of oxathiins against bean rust correlate very well with those of in vitro fungitoxicity tests, suggesting that oxathiin systemic fungicides act by virtue of their fungitoxicity, rather than by altering host metabolism.

IT 6577-30-6

RL: AGR (Agricultural use); BAC (Biological activity or effector, except

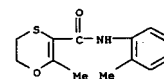
adverse); BSU (Biological study, unclassified); BIOL (Biological study);

USES (Uses)

(fungicides)

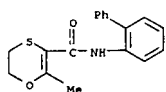
RN 6577-30-6 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)- (9CI) (CA INDEX NAME)

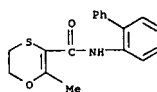


10544897

L12 ANSWER 44 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1969:511811 HCAPLUS  
 DOCUMENT NUMBER: 71:111811  
 TITLE: Effect of fungicides on Cochliobolus sativus and other fungi on barley seed in soil  
 AUTHOR(S): Mills, J. T.; Wallace, H. A. H.  
 CORPORATE SOURCE: Canada Dep. Agr., Winnipeg, MB, Can.  
 SOURCE: Canadian Journal of Plant Science (1969), 49(5), 543-8  
 CODEN: CPLSAY; ISSN: 0008-4220  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Nineteen seed-treatment fungicides were evaluated on barley seed infected with *C. sativus*, *Alternaria alternata*, and *Streptomyces* species. Seeds were treated with 0.97-2.80 g./kg. of each fungicide, placed in the soil for 7 days at 20°, and examined. Ceresan M (0.97 g./kg.), Panogen PX (2.6 g./kg.), and Dithane M-45 (2.6 g./kg.) were best for control of *C. sativus*. *A. alternata* was controlled by all but SWF 850 (hexachlorobenzene-captan-Maneb formulation, I), and G-696 (2,4-dimethyl-5-carboxanilidothiazole, II). *Streptomyces* growth was enhanced by I, II, 4497 [bis(1,2,2-trichloroethyl) sulfoxide], SWF 800, SWF 860 (similar to I), and P-735 (2,3-dihydro-5-carboxanilido-6-methyl-1,4-oxathin). A filter paper technique was recommended for initial screening of fungicides.  
 IT 6577-34-0  
 RL: BIOL (Biological study)  
 (fungus control by, on barley)  
 RN 6577-34-0 HCAPLUS  
 CN 1,4-Oxathin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



L12 ANSWER 45 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1969:19209 HCAPLUS  
 DOCUMENT NUMBER: 70:19209  
 TITLE: Determination of selective action of fungicides on the microflora of barley seed  
 AUTHOR(S): Mills, J. T.; Wallace, H. A. H.  
 CORPORATE SOURCE: Res. Sta., Canada Dep. Agr., Winnipeg, MB, Can.  
 SOURCE: Canadian Journal of Plant Science (1968), 48(6), 587-94  
 CODEN: CPLSAY; ISSN: 0008-4220  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB The effects of 47 seed-treatment fungicides on the microflora of barley seed naturally infested 95-100% with *Cochliobolus sativus* and other fungi were investigated after 7 days on moist filter paper. Each fungicide had a characteristic and reproducible effect on these organisms. Fungicides containing Hg or maneb were highly effective against all organisms.  
 Whereas specific effects were associated with other fungicides. Least survival (best control) of *C. sativus* was obtained with Ceresan M, Pandrinex APX and Panogen PX among the mercurials, and Green Cross SWF 850 and SWF 860, Chemagro 4497, and Chipman 53-64 among the nonmercurials. The incidence of *Acremonium* detected was high on seed treated with Dexon, *Cephalosporium* with Vitavax, *Streptomyces* with Green Cross SWF 850, and *Cladosporium* with Green Cross 3922. The data obtained by the filter paper method should be complementary to those obtained from treated seed after 7 days in soil.  
 IT 6577-34-0  
 RL: BIOL (Biological study)  
 (as fungicides for barley seed)  
 RN 6577-34-0 HCAPLUS  
 CN 1,4-Oxathin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

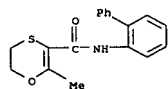


L12 ANSWER 46 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ED Entered STN: 12 May 1984  
 ACCESSION NUMBER: 1968:505333 HCAPLUS  
 DOCUMENT NUMBER: 69:105333  
 TITLE: Antifungal 2,3-dihydro-1,4-oxathin-5-carboxamides  
 PATENT ASSIGNEE(S): Uniroyal, Inc.  
 SOURCE: Brit., 8 pp.  
 CODEN: BRXXAA  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1124310		19680821	GB 1967-24834	19670530
CA 951243			CA	
DE 1617921			DE	
DE 1617924			DE	
FR 6477			FR	
US 3538225		19701103	US	19660627
			US	19660627

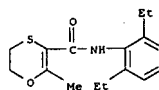
PRIORITY APPLN. INFO.:

OTHER SOURCE(S): MARPAT 69:105333  
 GI For diagram(s), see printed CA Issue.  
 AB The title compds. of formula I have useful antifungal activity against dermatophytes, especially against *Trichophyton mentagrophytes* var *interdigitale*. The most active compds. against this fungus were I (R = 2-biphenyl) (II), C6H13 (III), m-MeC6H4, 2,6-Et2C6H3, C5H11, and 2,4,6-Me3C6H2). Both II and III, each at 1000 µg./ml., were more effective (tests of zones of inhibition in agar plate culture) than griseofulvin and undecylenic acid. Using a seed agar technique, III in an ointment containing 1% (weight/weight) active agent was the most effective compound against *T. mentagrophytes*, *T. rubrum*, and *Microsporum audouinii*.  
 IT 6577-34-0 14316-45-1 21554-33-6  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)  
 (as fungicide)  
 RN 6577-34-0 HCAPLUS  
 CN 1,4-Oxathin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

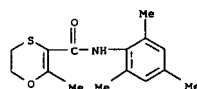


RN 14316-45-1 HCAPLUS  
 CN 1,4-Oxathin-3-carboxamide, N-(2,6-diethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 46 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 21554-33-6 HCAPLUS  
 CN 1,4-Oxathin-3-carboxamide, N-(2,4,6-trimethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



10544897

L12 ANSWER 47 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1968-95830 HCAPLUS

DOCUMENT NUMBER: 68-95830

TITLE: Carboxamido oxathiin oxides as systemic fungicides

and bactericides

INVENTOR(S): Von Schmeling, Bogislaw; Von Schmeling, Bogislaw;

Thiara, Dale S.; Harrison, William Ashley

PATENT ASSIGNEE(S): Uniroyal, Inc.

SOURCE: Patent

CODEN: FRXXAX

DOCUMENT TYPE: French

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1477062		19670414	FR 1966-58541	19660421
DE 1567211			DE	
GB 1099243			GB	
US 3402241		19680917	US 1965-506606	19651105
			US	19651105

PRIORITY APPLM. INFO.:

GI For diagram(s), see printed CA Issue.

AB Title compds. (I) showed a specific action against a number of soil pathogenic organisms such as *Uromyces phaseoli* typica and *Rhizoctonia solani* and bactericidal properties in foliage treatment against several organisms such as *Staphylococcus aureus*. Rates of application were 0.15 g.-7.5 g./kg. of seed to be treated, and 113.5 g.-11.3 kg./ha. when used as soil fungicides; for these applications, powder formulations were more suitable. For foliage treatments, 3-11 kg./ha., generally in H<sub>2</sub>O suspension, were suggested. To 0.3 mole  $\alpha$ -chloroacetanilide and 300 cc. C6H6 was added dropwise in 2 hrs. at approx. 30° 20.4 g. KOH, 0.3 mole HS(CH<sub>2</sub>)<sub>2</sub>OH, and 40 cc. MeOH, and the mixture stirred 1 hr. and worked up to give 65% 2,3-dihydro-5-carboxanilido-6-methyl-1,4-oxathiin (II), m. 93-5° (EtOH). To 25 g. II in 150 cc. AcOH and 5 cc. H<sub>2</sub>O was added dropwise, with stirring, in 15 min. 12 cc. 30% H<sub>2</sub>O<sub>2</sub> and 13 cc. AcOH and the temperature kept at 10-13° 5 hrs. and at 10° 16 hrs. without stirring. Distillation and cooling gave 80% 2,3-dihydro-5-carboxanilido-

6-methyl-1,4-oxathiin 4-oxide, m. 120-1° (iso-PrOH). The sulfone was prepared by adding dropwise to 0.5 mole II in 400 cc. AcOH, with stirring, 130 cc. 30% H<sub>2</sub>O<sub>2</sub> at 45-50°. When the exothermic reaction was over, the mixture was heated 1 hr. at 92° and worked up to give 121 g. 2,3-dihydro-5-carboxanilido-6-methyl-1,4-oxathiin 4,4-dioxide (III), m. 128-30° (EtOH). The following IV were prepared (R, m.p., and % yield given): carboxanilido, 121-2°, 80; 2,3-dimethylcarboxanilido, 196-8° (decomposition), 85; N-cyclohexylcarboxanilido, 140-1°, 80; o-ethylcarboxanilido, 106-8°, 80; p-methylcarboxanilido, 149-50°, 83; 2,4-dimethylcarboxanilido, 121-2°, 72; o-methylcarboxanilido, 121-3°, 88; 2-chlorocarboxanilido, 143-4°, 82; N-methylcarboxanilido, 168-70° (decomposition), 83; N-(tert-butyl)carboxanilido, 153-4°, 79; N-(n-dodecyl)carboxanilido, 79-81°, 75; 2,3-dichlorocarboxanilido, 177-8° (decomposition),

L12 ANSWER 47 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN (Continued)

99; 3-methoxycarboxanilido, 155-7°, 82; carboxymorpholido, 104-6°, 65; p-carboxycarboxanilido, 230-5° (decompn.), 84; 3,4-dimethoxycarboxanilido, 188-90° (decompn.), 75; N-isopropylcarboxamido 121-2°, 74; N-ethylcarboxanilido, 112-13°, 50; carboxanilido, 128-30°, 90; m-methylcarboxanilido, 133-5°, 90; N-cyclohexylcarboxamido, 182-4°, 80; o-methylcarboxanilido, 123-5°, 85; p-methylcarboxanilido, 163-5°, 87; 2,3-dimethylcarboxanilido, 151-3°, 44; 2-ethylcarboxanilido, 106°, 85; 3-methoxycarboxanilido, 150-2°, 86; 4-methoxycarboxanilido, 137-8°, 90; 3-bromocarboxanilido, 138-40°, 80; 3-chloro-2-methylcarboxanilido, 152-4°, 78; 2-methoxycarboxanilido, 186°, 70; 3-chlorocarboxanilido, 180-3° (decompn.), 68; 2,4,5-trichlorocarboxanilido, 210-11° (decompn.), 69; N-butylcarboxamido, 156-7°, 75; N-n-octylcarboxamido, 140°, 80; 2,4-dimethylcarboxanilido, 144-6°, 75; 2,5-dimethylcarboxanilido, 130-3°, 83; 3,4-dichlorocarboxanilido, 160-2°, 48; 2-methyl-4-methoxycarboxanilido, 133-6°, 60; 2-chloro-6-methylcarboxanilido, 163-5°, 50; N-methylcarboxanilido, 126°, 82; N-n-pentylcarboxamido, 154-6°, 90; N-n-hexylcarboxamido, 150°, 85; N-isopropylcarboxamido, 149-51°, 74; N-ethylcarboxanilido, 125-6°, 83; N-octadecylcarboxamido, 122-3°, 80; 2-chlorocarboxanilido, 173-4°, 91; 4-bromocarboxanilido, 215°, 93; 2,3-dichlorocarboxanilido, 159-61° (decompn.), 65; 2,5-dichlorocarboxanilido, 178-9° (decompn.), 68; 3,5-dichlorocarboxanilido, 213-14° (decompn.), 59; N-(n-decyl)carboxamido, 118°, 69; N-(n-dodecyl)carboxamido, 131-2°, 75; 4-chlorocarboxanilido, 217-19°, 95; 2-carboxamidocarboxanilido, 207-8° (decompn.), 34; 2-methoxy-5-chlorocarboxanilido, 153-5°, 89; N-cyanoethylcarboxanilido, 122-3°, 75; N-benzylcarboxamido, 152-3°, 89; 3,4-dimethoxycarboxanilido, 183-5°, 82; N-hexadecylcarboxamido, 125-6°, 83; 2-methyl-4-chlorocarboxanilido, 169-70°, 93; 3-chloro-4-methylcarboxanilido, 159-60°, 84; 2-methoxy-5-chlorocarboxanilido, 153-5°, 89; N,N-diethylcarboxamido, -, 90; N,N-dibutylcarboxamido, -, 75; and 2,5-dimethoxy-4-chlorocarboxanilido, 202-4°, -. The greatest fungicidal activity (beans) (*U. phaseoli*) was shown by III and 2,3-dihydro-5-(m-methylcarboxanilido)-6-methyl-1,4-oxathiin 4,4-dioxide.

IT

6577-38-4P 17757-73-2P 17757-76-5P  
17757-78-7P 17757-79-8P 17757-91-4P  
17757-93-6P 17757-94-7P 17757-98-1P  
17758-04-2P 17758-05-3P 17762-58-2P  
17762-75-3P 17762-76-4P

RL: SPN (Synthetic preparation); PREP (Preparation)

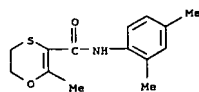
(preparation of)

RN 6577-38-4 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-

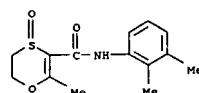
(9CI) (CA INDEX NAME)

L12 ANSWER 47 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN (Continued)



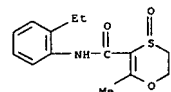
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CN 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-, 4-oxide (9CI) (CA INDEX NAME)



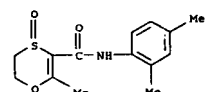
RN 17757-76-5 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-, 4-oxide (9CI) (CA INDEX NAME)



RN 17757-78-7 HCAPLUS

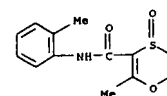
CN 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-, 4-oxide (9CI) (CA INDEX NAME)



RN 17757-79-8 HCAPLUS

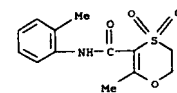
CN 1,4-Oxathiin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-, 4-oxide (9CI) (CA INDEX NAME)

L12 ANSWER 47 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN (Continued)



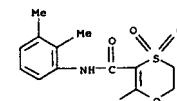
RN 17757-91-4 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



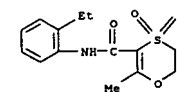
RN 17757-93-6 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



RN 17757-94-7 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

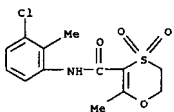


RN 17757-98-1 HCAPLUS

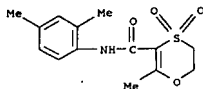
CN 1,4-Oxathiin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

10544897

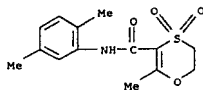
L12 ANSWER 47 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



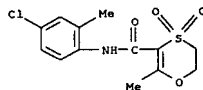
RN 17758-04-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



RN 17758-05-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,5-dimethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



RN 17762-58-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



RN 17762-75-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-methoxy-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 48 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1968:78294 HCAPLUS

DOCUMENT NUMBER: 68:78294

TITLE: 2,3-Dihydro-5-carbamoyl-6-methyl-1,4-oxathiin  
sulfoxides and sulfones

PATENT ASSIGNEE(S): Uniroyal, Inc.

SOURCE: Meth. Appl., 28 pp.

CODEN: NAXXAN

DOCUMENT TYPE: Patent

LANGUAGE: Dutch

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 6605527		19670508	NL 1966-5527	19660425
DE 1543941			DE	
DE 1793638			DE	
FR 1477061			FR	
GB 1098245			GB	
US 3398214		19680827	US 1965-506596	19651105
			US	19651105

GI For diagram(s), see printed CA Issue.

AB The title compds. (I) are prepared by oxidation of oxathiins. Thus, 72  
cc.

SO2Cl2 was dropwise added to a solution of 150 g. acetoacetanilide (III)  
in 1

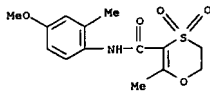
1. C6H6 to give 131 g.  $\alpha$ -chloroacetoacetanilide (III), m. 136-8°. To 63.5 g. III in 300 cc. C6H6, 20.4 g. KOH solution, then 22.2 cc. 2-mercaptoethanol (IV) in 400 cc. MeOH was added in 2 hrs. at 30° to give 45.8 g. 2,3-dihydro-5-(phenylcarbamoyl)-6-methyl-1,4-oxathiin (V), m. 93-5°. V also may be prepared by treating 33 g.  $\alpha$ -chloroacetoacetate in 200 cc. C6H6 with a solution of 13.6 g. KOH and 16 g. IV in 30 cc. MeOH at 30°, saponification of the obtained Et 2,3-dihydro-6-methyl-1,4-oxathiin-5-carboxylate, b1 107-10°, with NaOH in EtOH, then treating the acid with SOCl2 and condensing the chloride with PhNH2 in CHCl3. A mixture of 480 g.

2,3-dihydro-5-carboxy-6-methyl-1,4-oxathiin and 600 cc. CHCl3 is treated with 393 g. SOCl2, then with m-toluidine to give 2,3-dihydro-5-(m-methylphenylcarbamoyl)-6-methyl-1,4-oxathiin (VI), m. 82-4°. Similarly were prepared the 5-substituted V analogs: cyclohexylcarbamoyl, m. 130-1°, 3,5-dichlorophenylcarbamoyl, m. 147-9°, n-octylcarbamoyl, 74-5°, 2,4,5-trichlorophenylcarbamoyl, m. 165-7°. To a solution of 25 g. V in 150 cc. AcOH and 5 cc. H2O 12 cc. 30% H2O2 and 13

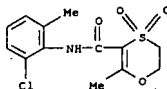
cc. AcOH was slowly added at 10-13° to give the 4-oxide, m. 120-1° (iso-PrOH). Treatment of 117.5 g. V in 500 cc. AcOH at 40-50° with 130 cc. 30% H2O2 gave the 4,4-dioxide, m. 128-30° (EtOH). Similarly are obtained the tabulated 4-oxides and 4,4-dioxides from the appropriate starting amines. The products are intermediates for syntheses.

IT 17757-73-2P 17757-76-5P 17757-78-7P  
17757-79-8P 17757-91-4P 17757-93-6P  
17757-94-7P 17757-98-1P 17758-04-2P  
17758-05-3P 17762-58-2P 17762-75-3P  
17762-76-4P 17842-03-4P 17842-10-3P  
17843-68-4P 17843-81-1P 17946-62-2P  
RL: SPN (Synthetic preparation); PREP (Preparation)

L12 ANSWER 47 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 17762-76-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-chloro-6-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

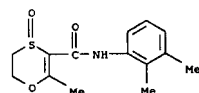


L12 ANSWER 48 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

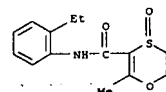
(prepn. of)

RN 17757-73-2 HCAPLUS

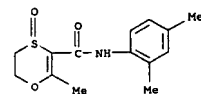
CN 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-, 4-oxide (9CI) (CA INDEX NAME)



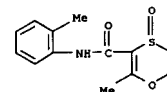
RN 17757-76-5 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-, 4-oxide (9CI) (CA INDEX NAME)



RN 17757-78-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-, 4-oxide (9CI) (CA INDEX NAME)



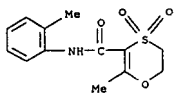
RN 17757-79-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-methylphenyl)-5,6-dihydro-2-methyl-, 4-oxide (9CI) (CA INDEX NAME)



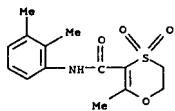
RN 17757-91-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

10544897

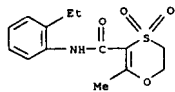
L12 ANSWER 48 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



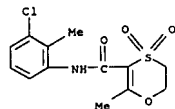
RN 17757-93-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



RN 17757-94-7 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

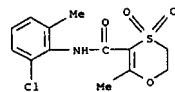


RN 17757-98-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

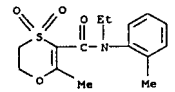


RN 17758-04-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

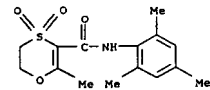
L12 ANSWER 48 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



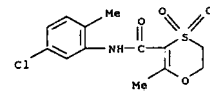
RN 17842-03-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-ethyl-5,6-dihydro-2-methyl-, 4,4-dioxide (8CI) (CA INDEX NAME)



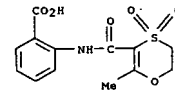
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CN 1,4-Oxathiin-3-carboxanilide, 5,6-dihydro-2,2',4',6'-tetramethyl-, 4,4-dioxide (8CI) (CA INDEX NAME)



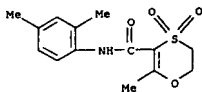
RN 17843-68-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(5-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (8CI) (CA INDEX NAME)



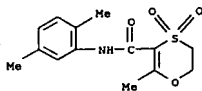
RN 17843-81-1 HCAPLUS  
CN Anthranilic acid, N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-, 5,5-dioxide (8CI) (CA INDEX NAME)



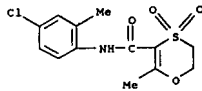
L12 ANSWER 48 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



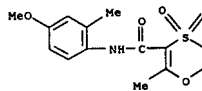
RN 17758-05-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,5-dimethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



RN 17762-58-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(4-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



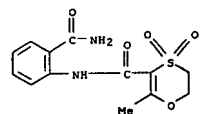
RN 17762-75-3 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(4-methoxy-2-methylphenyl)-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



RN 17762-76-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-chloro-6-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 48 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 17946-62-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[2-(aminocarbonyl)phenyl]-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)



L12 ANSWER 49 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1967:21147 HCAPLUS

DOCUMENT NUMBER: 68:21147

TITLE: Fungitoxic spectrum of oxathiin compounds

AUTHOR(S): Edgington, Lloyd V.; Barron, G. L.

CORPORATE SOURCE: Univ. Guelph, Guelph, Can.

SOURCE: Phytopathology (1967), 57(11), 1256-7

CODEN: PHYTAJ; ISSN: 0031-949X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Fifty percent inhibitory concns. (LC50) of 2,3-dihydro-5-carboxanilido-6-methyl-1,4-oxathiin (D735) and 2,3-dihydro-5-(o-phenylcarboxanilido)-6-methyl-1,4-oxathiin (F427) toward 33 Deuteromycetes, Phycmycetes, and Basidiomycetes were determined. Both compds. were highly toxic to the Basidiomycetes and both had LC50 values < 5 + 10-6M towards both *Rhizoctonia solani* and *Polyporus giganteus*. D735 was only slightly or moderately toxic to other fungi tested, except towards *Verticillium albo-atrum* and *Monilia cinerea* f. *americana* (LC50 values < 8 + 10-6M and < 5 + 10-6M, resp.). F427 was also highly toxic towards all members of Porosporae examined with LC50 values ranging 5 + 10-6M-2 + 10-5M against *Alternaria solani*, *Stemphylium botryosum*, *Bipolaris sorokiniana*, *Drechslera*, *Curvularia geniculata*, *Dichotomophthora indica*, *Dendryphiella salina*, *Dendryphon laxum*, and *Torula herbarum*. In the Phialosporae, F427 was highly toxic only to *Aspergillus* species and had LC50 values < 5 + 10-6M towards *A. amstelodami*, *A. flavus*, *A. fumigatus*, and *A. niger*. In the Arthrosporeae, F427 was moderately toxic to both species tested, with LC50 values of 20 + 10-6 and 9 + 10-6M towards *Amblyosporium botrytis* and *Oidiodendron truncatum*, resp.

In the Blastosporae, F427 was highly toxic to *Cladosporium cucumerinum*, *Botrytis* species, and *M. cinerea* f. *americana* with LC50 5 + 10-6M towards each of these species, but was only slightly inhibitory towards the yeasts *Rhodotorula aurantiaca*, and *Candida humicola*. F427 was not inhibitory towards any of the species of Annelosporae, Symptodulosporeae, or Aleurosporeae examined, except towards *Pithomyces chartarum* (LC50 < 5 + 10-6M). In the Phycmycetes, F427 was highly toxic towards *Cunninghamella echinulata* and *Thamnidium elegans* but only moderately

toxic to *Mucor* species and *Rhizopus nigricans* LC50 values < 5 + 10-6, < 5 + 10-6, 22 + 10-6, and 27 + 10-6M, resp. Activity against *C. echinulata* suggests a possible activity of F427 against other mucorales such as *Choanephora cucurbitarum*, a parasite of cucurbits.

F427 therefore has a wider spectrum of fungicidal activity than D735, although it does show a preference for certain taxonomic groupings.

IT 6577-34-OP

RL: SPN (Synthetic preparation); PREP (Preparation)

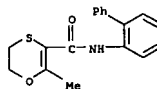
(preparation of)

RN 6577-34-0 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 49 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

(Continued)



L12 ANSWER 50 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

(Continued)

50-1°, 65; NHC12H25, 72°, 64; cyclohexylamino, 127-8°, 77; NHC6H4NO2-4, 139-40°, 25; NHC6H4OEt-4, 120-2°, 50; NHC2H5, 93°, 85; NHC6H4CO2H-2, 187-9°, 60; 2-furylamino, 103-4°, 81; N-pyridyl, -, 25; NPr2-iso, b3 119°, 64; NBU2, b12 200°, 40; N(CH2CH:CH2)2, b3 127°, 80; NET2, b3 132°, 60; NMePh, 11-14°, 72; NHC6H4Cl-4, 130-2° (MeOH), 48; NHC6H4Cl-2, 83-5°, 46; NHC6H4Me-2, 88-9° (MeOH), 81; NHC6H4OMe-2, 123-6° (MeOH), 45; NHC6H4Cl-3, 79-82° (MeOH), 68; NHC6H4Me-4, 95-8° (MeOH), 74; NHC6H4NO2-2, 129-32° (MeOH-Me2CO), 43; NHC6H4NO2-3, 118-20° and 123-5° (MeOH-Me2CO), 60; α-naphthylamino, 125-7° (MeOH), 55; β-naphthylamino, 111-13° (MeOH), 60; NHC6H4Ph-4, 125-7°, 65; NHC6H4Ph-2, 83-6° (MeOH), 57; NHC6H4CO2Me-2, 123-5° (alc.), 44; NHC6H3Me-4,2, 76-8°, 72; NHC6H4OMe-3, 83-4-5°, 65; NHC6H4OH-2, 129-32° (alc.), 61; NHC6H4OH-3, 170-2°, 52; NHC6H4OMe-2, 122-5°, 52; NHC2H4Cl, 81-3°, 63; ethylenediamine, b1 105°, 59; NHC6H4CF3-3, 70-2°, 61; NHC6H4SMe-2, -, 71; NPhC2H4CN, 87-9°, 60; 2-benzothiazolylamino, 153-4°, 80; NHBu-tert, 48-51°, 78; NHC5H11, 80-2°, 75; NHC6H13, 82-4°, 71; NHC6H17, 74-5°, 84; NHC10H21, 46-7°, 88; NHC16H33, 74-5°, 66; NHC18H37, 79-80°, 74; NHC6H4Et-2, 78-80°, 82; NHC6H4Br-3, 92-3°, 61; NHC6H4Br-4, 119-20°, 86; NHC6H4CO2Et-4, 90-2°, 63; NHC6H4CONH2-2, 186-8°, 57; NHC6H4Ac-3, 117-5-19-5°, 68; NHC6H3Me2-3,2, 101-5-3-5°, 77; NHC6H3Cl2Et2-6,2, 81-3°, 58; NHC6H3MeCl-2,3, 136-8°, 64; NHC6H3Cl2-5,2, 120-2°, 56; NHC6H3Cl2-3,2, 105-7°, 81; NHC6H3Cl2-4,3, 106-8°, 59; NHC6H3Cl2-5,3, 147-9°, 76; NHC6H3MeCl-6,2, 82-4°, 57; NHC6H2Cl3-5,4,2, 166-8°, 70; NHC6H4Me-2, 57-5-60°, 49. Also prepd. was VII, m. 168°.

IT 6577-30-6P 6577-34-OP 6577-38-4P

13582-27-9P 13582-44-OP 13582-62-2P

13582-66-6P 13582-78-OP 13582-79-1P

13582-84-8P 13582-86-OP 14316-45-1P

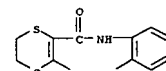
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 6577-30-6 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-N-(2-methylphenyl)- (9CI)

(CA INDEX NAME)



RN 6577-34-0 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-N-(2-methylphenyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 50 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1967:95055 HCAPLUS

DOCUMENT NUMBER: 66:95055

TITLE: 2,3-Dihydro-5-carboxamide-6-methyl-1,4-oxathiin

PATENT ASSIGNEE(S): United States Rubber Co.

SOURCE: Neth. Appl., 18 pp.

CODEN: NAXXAN

DOCUMENT TYPE: Patent

LANGUAGE: Dutch

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 6605525	A	19661027	NL 1966-5525	19660425
US 3393202	A	19680716	US 1965-451048	19650426
BR 6677408	DO	19730809	BR 1966-177408	19660228
BE 679985	A	19661003	BE 1966-679985	19660425
IL 25635	A	19700420	IL 1966-25635	19660426
NL 6910431	A	19691027	NL 1969-10431	19690708
			US 1965-451048	A 19650426

PATENT APPLN. INFO.:

GI For diagram(s), see printed CA issue.

AB The title compds. (I) are prepared by reaction of an α-chloroacetylacetamide or a lower alkyl ester of α-chloroacetylacetic acid with HSC2H4OH. Thus, to 150 g. AcCH2CONHPh in 1 l. C6H6 was added

in 1.5 hrs. 72 ml. SO2Cl2, the mixture stirred 0.5 hrs., and filtered to yield

131 g. AcCHClCONHPh (II), m. 136-8°. To 63.5 g. II in 300 ml. C6H6 was added in 2 hrs. <30°, 20.4 g. KOH, 22.2 ml. HSC2H4OH, and 40 ml. MeOH and the mixture stirred 1 hr., filtered, the filtrate

concentrated, the residue dissolved in C6H6, acidified with 0.8 g. 4-MeC6H4SO3H, the solution

refluxed until 5 ml. H2O separated and concentrated to yield 45.8 g. I (R = NHPh).

(II), m. 93-5° (alc.). To 260 g. AcCH2CO2Et was added 270 g. SO2Cl2 in 3 hrs. at 0-5°, the mixture kept overnight, and distilled to yield 300 g. AcCHClCO2Et (IV), b16 88-90°. To 33 g. IV in 200 ml. C6H6 was added in 1.5 hrs. <30°, 13.6 g. KOH, 15 ml. HSC2H4OH, and 30 ml. MeOH, the mixture stirred 1.5 hrs., filtered, concentrated, the

residue taken up in C6H6, acidified with 4-MeC6H4SO3H, the solution refluxed until

3.4 ml. H2O separated, washed with H2O, and concentrated to yield 23 g. I (R = OEt).

(V), b1 107-10°. To 188 g. V in 50 ml. alc. was added 60 g. NaOH in 400 ml. H2O and the mixture refluxed 0.5 hrs., acidified with HCl, and filtered to yield 134 g. I (R = OH) (VI), m. 180-1° (alc.). To 32 g. VI in 200 ml. CHCl3 was added 16 ml. SOCl2, the mixture refluxed 2

hrs., the solution concentrated, the residue dissolved in C6H6 and 37.2 g. PhNH2 in C6H6

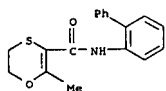
added, to yield after work up 38 g. III. The following I were prepared by

similar methods (R, m.p., or b.p., and % yield given): NHC6H4CO2H-2, 249-51°, 47; morpholino, b2 168-70°, 80; NHC6H3Me2-3,2, 190-3°, 75; NH2, 172-4°, 50; NHC6H3MeCl-2,3, 117-19°, 65;

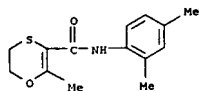
NHC6H3Cl2-3,2, 73°, 66; NHBu, 85-6°, 70; NHBu-iso,

10544897

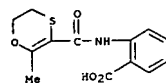
L12 ANSWER 50 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



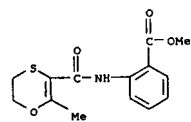
RN 6577-38-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 13582-27-9 HCAPLUS  
CN Anthranilic acid, N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]- (8CI) (CA INDEX NAME)

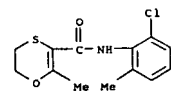


RN 13582-44-0 HCAPLUS  
CN Anthranilic acid, N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-methyl ester (8CI) (CA INDEX NAME)

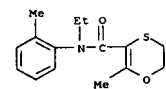


RN 13582-62-2 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

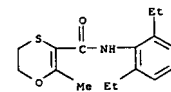
L12 ANSWER 50 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



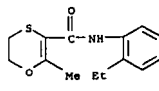
RN 13582-86-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



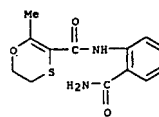
RN 14316-45-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,6-diethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



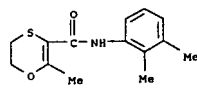
L12 ANSWER 50 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



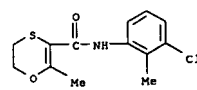
RN 13582-66-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxanilide, 2'-carbamoyl-5,6-dihydro-2-methyl- (8CI) (CA INDEX NAME)



RN 13582-78-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 13582-79-1 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)



RN 13582-84-8 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2-chloro-6-methylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 51 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

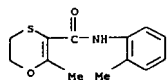
ED Entered STN: 22 Apr 2001  
ACCESSION NUMBER: 1966:438564 HCAPLUS  
DOCUMENT NUMBER: 65:38564  
ORIGINAL REFERENCE NO.: 65:7190g-h, 7191a-b  
TITLE: Carboxamidooxathiin biocides  
INVENTOR(S): Von Schmeling, Bogislav; Kulka, Marshall; Thiara, Daniel S.; Harrison, William A.  
PATENT ASSIGNEE(S): United States Rubber Co.  
SOURCE: 6 pp.  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3249499		19660503	US 1965-451011	19650426
PRIORITY APPLN. INFO.:			US	19650426

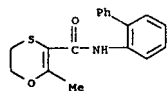
GI For diagram(s), see printed CA Issue.  
AB Systemic fungicides and bactericides (I) were prepared and tested against Uromyces phaseoli typica, Rhizoctonia solani, and Staphylococcus aureus. The oxathiins were prepared by 2 methods: (a) reaction of an  $\alpha$ -chloroacetosacetamide with SOCl<sub>2</sub> in C<sub>6</sub>H<sub>6</sub>, then with H<sub>2</sub>SO<sub>4</sub> (II) under basic conditions, followed by acid dehydration or (b) chlorination of the alkyl acetoacetate with SOCl<sub>2</sub>, treatment with II, acid dehydration, alkaline hydrolysis, conversion to the acid chloride with SOCl<sub>2</sub>, and reaction with an amine to form the amide. Thus, 2,3-dihydro-5-carboxanilido-6-methyl-1,4-oxathiin (Ia), m. 93-5° was prepared by adding a solution of 20.4 g. KOH, 22.5 g. II and 40 ml. MeOH to a stirred suspension of 63.5 g.  $\alpha$ -chloroacetosacetanilide and 300 ml. dry C<sub>6</sub>H<sub>6</sub> dropwise in 2 hrs. <30°. The mixture was stirred 1 hr., filtered, solvent stripped, extracted with C<sub>6</sub>H<sub>6</sub>, washed with H<sub>2</sub>O until neutral, acidified with 0.8 g. p-toluenesulfonic acid, refluxed to remove 5 ml. H<sub>2</sub>O washed, and stripped to give 65% I. The following I (R = H) were prepared (R', m.p., and % yield by method a and method b given): o-tolyl (III), 88-9°, 43, -; m-tolyl (IV), 83-5°, 46, 75; p-tolyl, 95-8°, -, 14; o-chlorophenyl, 83-5°, 44, -; p-chlorophenyl, 130-2°, 48, -; 2-biphenyl, 125-7°, -, 23; butyl, 85-6°, -, 70; cyclohexyl, 127-8°, -, 77; allyl, 73°, -, 66;  $\alpha$ -naphthyl, 125-7°, -, 21; p-ethoxyphenyl, 120-2°, -, 50; 2,4-dimethylphenyl, 76-8°, -, 32; m-methoxyphenyl, 83-4.5°, - 65. I (R = Me, R' = Ph), m. 111-14°, was prepared in 72% yield by method b. In sprays at 50 ppm. Ia, III, and IV all gave 90-100% control of U. phaseoli typica which was also controlled by seed treatment with Ia at 8 oz./100 lb. seed or by soil treatment at 20 ppm. R. solani on cotton seedlings was controlled by 20 ppm: Ia, III, or IV in the soil or by 2 oz. Ia/100 lb. seed. Ia 128 ppm. and III at 225 ppm. killed S. aureus.  
IT 6577-30-6P, 1,4-Oxathiin-3-carboxy-o-toluidide, 5,6-dihydro-2-methyl- 6577-34-0P, 1,4-Oxathiin-3-carboxanilide, 5,6-dihydro-2-methyl-2'-phenyl- 6577-38-4P, 1,4-Oxathiin-3-carboxy-2',4'-xylidide, 5,6-dihydro-2-methyl- RL: PREP (Preparation) (manufacture and use as pesticide)  
RN 6577-30-6 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)- (9CI)

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L12 ANSWER 51 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
(CA INDEX NAME)



RN 6577-34-0 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-  
(9CI) (CA INDEX NAME)



RN 6577-38-4 HCAPLUS  
CN 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-  
(9CI) (CA INDEX NAME)

